HOSPITAL ABSTRACTS

A MONTHLY SURVEY OF WORLD LITERATURE

PREPARED BY THE DEPARTMENT OF HEALTH AND SOCIAL SECURITY

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HOSPITAL ABSTRACTS

Vol. 19 March, 1979 No. 3

HOSPITALS IN GREAT BRITAIN

312. McLoughlin, G. **A short history of the first Liverpool Infirmary, 1749-1824.** London, Phillimore, 1978, [ix], 177pp. £5.25

The Liverpool Infirmary opened on 25 May 1749 within the same quarter century as Guy's, St. George's, the London and the Middlesex hospitals in London. It was part of the great voluntary hospital system that was to continue until the introduction of the National Health Service in 1948. The author's account deals with the foundation of the Workhouse in 1731 in Liverpool, and the planning and building of the Infirmary itself. The next eight decades up to the opening of the Lunatic Asylum in 1831 are covered in depth. Appendices include details of: rules and orders; presidents of the Liverpool Infirmary, 1749-1824; treasurers; life trustees; trustees qualified by subscription; physicians; apothecaries; in-patients, 1749-1824; and out-patients, 1749-1824. The text is illustrated by eight plans and diagrams.

HOSPITALS IN OTHER COUNTRIES

See also Abstract Nos. 318, 320, 354, 355

313. Finelli, R. Ospedali e consorzi socio-sanitari. **[Hospitals and the sociological-health care links.]** *Ospedali d'Italia*, Roma, 1978, Sept., vol. 15, no. 9, pp. 10-19.

This is a plea for greater involvement of hospital administrators and local assemblies in the development of the regional health plan for 1978-1981 which will lay the foundations for the re-allocation of hospital and extra-hospital services.

314. Gassilloud, B. L'hospitalisation en Europe (2 partie). Le financement des dépenses hospitaliers par un système d'assurances sociales. **[Hospitals in Europe, Part II. The financing of hospital spending by a system of social/health insurance.]** *Gestions Hospitalières*, Mantes, 1978, Oct., no. 179, pp. 737-741, 743-749.

The author first examines the methods adopted in the four European countries—Italy, Belgium, West Germany, and France—where most of the cost of hospital treatment is covered by the patient's insurance scheme and the patient pays a small proportion of the cost himself. Recent changes in the Italian system, where hospital financing has now become the responsibility of the Regions, are described. Methods of determining the daily charges to the patient are also examined and special attention devoted to the case of Belgium, where the Government determines the daily rate, which is the same in both public and private hospitals. Hospital investment in France, West Germany and Belgium is now heavily dependent on State subsidies.

PLANNING, DESIGN AND CONSTRUCTION

HOSPITAL DESIGN

See also Abstract No. 384

315. KELLY, J. **Examples of multi-use of space in hospitals.** (M.A.R.U. 6/77) London, Medical Architecture Research Unit, Polytechnic of North London, 1977, [iii], 24pp. £0.50

This report presents information collected during a space utilization study, commissioned by the Department of Health and Social Security, into existing patterns of space use in hospitals, with a view to discovering the potential for shared or multi-use space. There are two sections: section one considers existing examples of multiple use of space in the two hospitals studied, with a discussion of some of the factors found to limit such use; and section two considers the effect of design and policy on the use of space.

DESIGN OF SPECIAL DEPARTMENTS

See Abstract No. 382

DESIGN OF SPECIAL HOSPITALS OR UNITS

See Abstract Nos. 412, 439

ENGINEERING SERVICES

ELECTRICAL INSTALLATIONS AND EQUIPMENT

316. PLATTS, J. R. **All-electric hospitals in Europe and North America: an appraisal of some existing schemes.** *World Hospitals*, London, 1978, Aug., vol. 14, no. 3, pp. 174-177.

This paper examines four all-electric hospitals: Queen Fabiola Hospital Centre, Auvelais, Belgium; Provident Hospital, Baltimore, Md., U.S.A.; Hôtel-Dieu de Gaspe, Quebec, Canada; and La Renaissance Clinic, Marseilles, France. From the appraisals, it can be seen that the all-electric hospital has been accepted enthusiastically by many engineers and hospital authorities. Differing tariff structures have led to different solutions such as storage radiators in Belgium and peak load lopping in the United States; careful consideration of the best formula should be given to any design drawn up. By combining several of the ideas outlined in the schemes, it would be possible to use the all-electric approach to hospital services design to achieve an

attractively low-cost installation and an acceptable cost in use which would continue throughout the life of the building.

TRANSPORT IN GENERAL

See also Abstract No. 406

317. KAPPELER, D. P. Transportsystemen in ziekenhuizen: goede planning noodzakelijk ter voorkoming van foutieve investeringen. **[Hospital transport systems: good planning is essential to avoid errors in expenditure.]** *Technische Gids voor Ziekenhuis en Instelling*, Amsterdam, 1978, Sept. 4, vol. 47, no. 1139, pp. 384-387.

Efficient planning should aim at the integration of transport techniques with other hospital services. The planning can be done in three stages: (i) primary transport, such as lifts, loading stations, etc; (ii) connections of the primary functions leading to the choice of transport system; and (iii) integration of transport system with other hospital projects and services. The planning of each stage should be based on detailed knowledge of transport materials obtained from data registration, analysis and technical and economic know-how. The planning team should include experts from the fields of transport, administration, data management techniques, organization and operations research. Planning should be carried out in phases: (i) defining the data including separate sub-divisions of the transport system and a function plan giving working space, time and staff; (ii) choice of system including basic research; (iii) layout planning including integration, practical conditions and budgeting; (iv) planning of details such as description of terms, controls, checks, calculations of investment and efficiency. The working out of these phases is given in detail and illustrated by examples of a planning course, some automatic goods transport systems (e.g. pneumatic tubes, electro-monorail), and three calculation graphs.

HEATING

See also Abstract No. 316

318. UNITED STATES. HEALTH RESOURCES ADMINISTRATION. ENERGY ACTION STAFF. **Total energy management for nursing homes and other long-term care institutions.** (DHEW Publication No. (HRA)77-614) Washington D.C., U.S. Government Printing Office, 1977, v, 62pp.

This book provides the basic instruction needed to implement Total Energy Management (TEM), an energy conservation scheme based on the premise that to make energy savings in buildings one must make the building's systems as efficient as possible. To begin with, an Energy Utilization Index must be developed to indicate how much energy in BTU's the building consumes per gross conditioned square foot in a given period of time. This allows an initial energy conservation goal to be established, and the building is then surveyed to determine where opportunities for energy conservation exist. Management determines the priorities in the light of this survey, and can set a target for the first year. Instructions are given for all stages in the above procedure, including guidelines for energy conservation in specific areas such

as heating and cooling, lighting, transmission, and also for monitoring the programme. As a TEM programme is essentially a team effort the personnel management aspects are also discussed. Two appendices cover: building information for TEM; and sources of information on energy management. A glossary, list of abbreviations and bibliography are also included.

319. JENSEN, O. and others. Energibesparende foranstaltninger indea for sygehusvasenet. **[Energy-saving measures in the hospital services.]** *Tidskrift for danske Sygehuse*, København, 1978, Sept., vol. 54, no. 8, pp. 114-126.

The factors affecting the consumption of energy, and thus efforts to save it, are: (i) the people designing and operating the system; (ii) the design and reliability of the automatic control systems in operation; (iii) the degree of recirculation of heated fluids (air and water) practised and the quantity of heat re-used; (iv) the priorities adopted in applying energy-saving investments; and (v) the use made of published results of research. Any heating and ventilation system installed must be designed on low energy principles and must be foolproof in operation. The wording of the instructions for use is frequently decisive for the economic operation of the system. A wide range of automated systems (thermostats, humidity control devices, start/stop controls) is available, capable of reducing the human factor and saving significant amounts of energy: perhaps 75 per cent of that now used in some buildings. Heat can be extracted and re-used from ventilator air, waste water and refrigeration units, saving enormous sums of money (and quantities of fuel) per year. The Board of Trade (*Handelsministeriet*) has a series of research projects in hand to save energy, and maintains a public consultancy service. Unfortunately the final result of a series of energy-saving economies is frequently less than the sum of its parts—in many cases because of poor staff training and ignorance on the part of the people using the system.

MAINTENANCE OF BUILDINGS AND EQUIPMENT

See also Abstract Nos. 326, 451

320. RILEY, C. **Hospital maintenance in developing countries.** *Lancet*, London, 1978, Sept. 23, vol. ii, pp. 669-671.

A survey carried out in a number of Commonwealth countries in 1975 and 1976 revealed that all hospital equipment, from sophisticated machinery to bed castors, was lacking any scheme of maintenance. The causes of neglect included: (i) the lack of an administrative structure in the health services to deal with maintenance; (ii) the lack of a senior official in charge of engineering services; (iii) a shortage of technically trained staff; and (iv) a lack of standardization of equipment. Training schemes set up by agencies such as the World Health Organization and the Commonwealth Secretariat can make little impact. All hospital maintenance needs to be brought under the direct control of the health department of each country. The department should then plan an establishment of hospital engineering technicians with a career structure and regional courses for further training. The system of purchasing equipment also needs to be revised. These suggestions were generally accepted by Commonwealth health ministers at their conference in 1977.

EQUIPMENT, FITTINGS, FURNITURE

EQUIPMENT GENERALLY

See also Abstract No. 391

321. FARMER, E. **The impact of technology on nursing.** *Nursing Mirror*, Sutton, 1978, Sept. 28, vol. 147, no. 13, pp. 17-20.

A study was carried out in a large teaching hospital in Scotland to examine the involvement of the nurse in the application of technology to patient care. Data were collected over 954 hours from 126 nurses in four intensive care units and five general wards. The average number of encounters with technology was 2.6 per hour representing a total of 80 for each object of technology. Modern equipment can prove a hazard to patients if its design is faulty or the user fails to appreciate its potential danger. The study showed that charge nurses were rarely asked to contribute to the planned introduction of modern equipment to wards and units and there was very little planned preventive maintenance. Nurses were often unaware of faults in sophisticated equipment and the lack of instruction in the use of such equipment was a cause for concern. The impact of technology on medicine has played an important part in initiating discussion on how the role of the nurse may be extended.

322. ELTON, V. **Piped medical gas systems.** *Hospital Development*, London, 1978, Sept./Oct., vol. 6, no. 5, pp. 23-24.

It is usually more economical to supply medical gases by pipeline rather than by portable cylinders in any hospital of over 150 beds; piped vacuum installations are likewise more economical than portable suckers. The high standard and safety of the piped installation must be obtained by an operational policy and a 'permit to work' system. A new British Standard on terminal units and hose connections is about to be issued. Contamination of pipes, fittings and valves must be avoided during the construction of the system. Compressed air for patient ventilators is generally supplied by two-stage compressors fitted with after-coolers and dryers. Piped vacuum installations are normally operated by two pumps, each of which is able to meet the total demand. Medical gas installations work automatically and have their own alarm system, but time must be allowed for regular testing and maintenance.

323. DONN, M. **Dangers of faulty and broken equipment.** *Nursing Times*, London, 1978, Nov. 2, vol. 74, no. 44, Theatre nursing supplement, pp. 13, 15.

Advances in medical technology have reached the position where the users do not necessarily fully understand the workings of their equipment and must therefore rely on others not only to provide but also to maintain safe, efficient equipment. To function safely, it is essential to make the fullest use of communication between disciplines and whenever necessary involve the manufacturers. These communications must promote safety by recognizing the responsibility of each discipline in agreed policies reached by joint consultation. Responsibility starts with the manufacturer who must be involved in the instigation and implementation of any service contract

that is necessary. The designated safety officer for a unit must be aware of all details of maintenance procedure. The role and functions of the designated safety officer for the operating department are outlined, together with sources of information.

324. BUREAU, J. L'automatisme dans l'unité de soins. **[Automation in health care.]** *Techniques Hospitalières*, Le Kremlin-Bicêtre, 1978, Oct., vol. 33, no. 397, pp. 75-79.

In the Regional Hospital in Orleans, the section for minimum care patients has been separated from the main building and is constructed around a small cloistered garden. This type of patient accommodation requires very little in the way of automation, but is linked to the main building by a telephone system with a keyboard and memory which can record calls and serves as an input-output terminal for a simple data processing system. This same type of memory and telephone system can be used in normal care units, but here it is used more intensively for exchanges of information, for programmed learning, for orders and for transfers. In the intensive care unit, videophones and television have a role to play and there is now a system for automatic activation of a pacemaker in the event of a reduction in a patient's cardiac rhythm. Other advances in automation are discussed with regard to dusting and cleaning, evacuation of refuse, the treatment of the air in the air-conditioning system, and automatic control of energy consumption. Developments in mini-computers obviate the need for a large central computer.

MEDICAL EQUIPMENT

See also Abstract No. 451

325. MITCHELL, J. P. and others. **Report of the Standing Committee on Urological Instruments: endoscopes.** *British Journal of Urology*, Edinburgh, 1978, Oct., vol. 50, no. 6, pp. 361-366.

The events leading up to the establishment of the Standing Committee on Urological Instruments of the British Association of Urological Surgeons are outlined and a brief resumé is given of the report of its first investigation, which dealt with endoscopes. Six manufacturers co-operated by submitting their instruments for investigation. In addition to clinical and technical aspects the investigation covered sterilization or disinfection, repair service and cost.

326. HENDERSON, J. D. and BOWMAN, C. C. **An automatic medical equipment test system.** *Journal of Clinical Engineering*, Long Beach, Calif., 1978, July/Sept., vol. 3, no. 3, pp. 245-250.

Routine testing of medical instrumentation, for purposes of increased reliability and safety, is becoming a part of standard practice in hospitals. Automatic testing can result in increased standardization, saving of time, and reduction of the tedium associated with repetitive work. This paper describes a system implementing the principles of automatic testing designed, constructed and deployed within a programme of routine hospital equipment testing at Auckland (N.Z.) Hospital. For the purposes of the system, tests have been placed in two categories: (i) general—those common to all types of equipment, i.e. electrical safety, visual inspection; and (ii) specific—those specific to the class of equipment under test, e.g. its function and special safety functions.

AUDIO-VISUAL EQUIPMENT

327. BRANTZ, M. H. **Health center streamlines use of audiovisual aids.** *Hospitals*, Chicago, 1978, Sept. 1, vol. 52, no. 17, pp. 81-84.

Audiovisual aids and programmes can be used to help provide effective and efficient in-hospital continuing education programmes. The cost of audiovisual equipment can be minimized and its use maximized by implementing standardization policies that identify and simplify the number and types of equipment to be purchased. The introduction of such policies at the University of Connecticut Health Centre, Farmington, is described. Audiovisual equipment performs three basic functions—producing sound, still pictures and moving pictures. From the 21 equipment formats available, three were selected as primary formats to be used in the hospital for the three basic functions: audiocassette player, 35 mm slide projector, and ¾ inch videocassette player. Adequate programmes are available for these formats, which also readily accept programmes from other formats. The advantages and disadvantages of standardization are discussed. The centre's experience shows that standardization of audiovisual equipment is both feasible and economical.

ELECTRONIC EQUIPMENT

328. CACERES, C. A. and AYERS, W. R. **Systems to support clinical decisions: automated medical signal analysis.** *Medical Instrumentation*, Arlington, Va., 1978, July/Aug., vol. 12, no. 4, pp. 226-229.

The benefits and capabilities of an automated medical signal analysis system that can lead to more effective care include: improved legibility, accuracy and precision of observations and results; standardization of terminology and format; increased accessibility and availability of patient information; reduction in observer variation; and provision of individual and collective patient records with multiple observations in manageable form. The capabilities of different types of systems are outlined, and automated systems that support normative and managerial decisions are described. The need for the practising doctor to anticipate computer hardware problems and potential errors in programming is discussed.

STAFF GENERALLY

STAFF COMPLEMENTS

See also Abstract Nos. 334, 335, 339, 340, 345, 446

329. MONTFORT, A. P. W. P. van and SPAAN, J. M. Totale personeelssterkte in de intramurale gezondheidszorg is sterk gedaald. **[Statistical survey shows a sharp decrease in the growth rate of the total number of hospital staff in 1977.]** *Ziekenhuis*, Utrecht, 1978, Sept. 20, vol. 8, no. 18, pp. 472-474.

The total number of staff in all health service premises was 213,771 in 1977, which represents an increase of 2.7 per cent over 1976. This is a lower rate of increase than

in every year but one since 1972. The increase falls into two categories. The first is the change in number of available beds (total 172,061 in 1977) which shows an increase of 0.6 per cent over 1976. It was found that bed capacity had decreased mainly in psychiatric hospitals and nursing homes for the physically ill (the latter due to a change in licencing), but increased in combined and psychiatric nursing homes. The second is the average number of staff per 100 available beds (124.2 per 100 beds in 1977), which shows an increase of 2.1 per cent over 1976. The total number of staff since 1972 shows an increase of 19.9 per cent. Groups which have mostly contributed to this increase are trained nursing and educational, general, para-medical and medical assistant staff, with a considerable drop in domestic assistants. The drop in students for nursing and education during 1977 was mainly due to the introduction of a pre-clinical training course outside the pay structure of the health service institutions. Details are given of types of premises, groups of employees and annual growth rates between 1972 and 1977, illustrated by two diagrams and four tables.

330. KÖNNEN, E. De IJkhoeve: rapport over de personeelsbezetting in verpleeghuizen. **[The IJkhoeve [hospital working model]: report on the hospital's staffing complement.]** *Ziekenhuis*, Utrecht, 1978, Sept. 20, vol. 8, no. 18, pp. 468-470.

A staffing model was developed for an imaginary nursing home for physically ill people with 150 occupied beds in five 30-bedded wards. Emphasis was laid on general organization, task division between nursing and domestic services, and patient care, which was divided into basic and TOP (therapy, unexpected and personal) care. The 24 hours were divided into nine periods each with its pattern of activities and number of staff considered appropriate for that period. The final calculation produced a need for a staff of 110 to 117 against the present permitted maximum of 100. Reaction, tested in 24 hearings from some 200 nursing homes employees in various parts of the country, was generally favourable, though there was criticism of lack of internal communication and insufficient sociotherapy. In some aspects a majority of those questioned differed from the model with suggestions: to give patients more time to dress in the morning; to reduce evening staff; to have more transport carried out by non-nursing staff; to have more evenly balanced numbers of trained staff and students on night duty, and more supplementary lectures for trained staff. To comply with each suggestion, would extend the directives of the model by 10 to 17 per cent. A framework for negotiations is mentioned with a basic number of staff as a starting point. A compendium has been issued containing relevant supplements. The paper includes a model of the building and a graph of work-load on a week day.

STAFF MANAGEMENT

See Abstract Nos. 341, 373

STAFF RELATIONS

331. GRONER, P. N. **Cost containment through employee incentives program.** Germantown, Aspen Systems Corporation, 1977, xvii, 145pp. $15.00

The Baptist Hospital of Pensacola, Florida, has been running employee incentive programmes since 1965, with the two preceding years being 'pre-productivity incentive

years'. Part one of this book outlines the history of this development up to the end of the 1960's, when various events—severe nationwide inflation, expansion of the hospital, and confusion over Internal Revenue Services regulations relating to such programmes —forced productivity incentives into a subordinate position for several years. In the mid-1970's the basic plan was restructured to make it more relevant to the present-day hospital situation. Part two describes the development and design, giving a detailed account of the separate programmes covering manpower utilization, supply utilization and quality assurance. Appendices cover: reports of four independent studies of the employee incentive programme; before and after indicators; Baptist Hospital financial indicators; and Hospital Administrative Services productivity indicators.

STAFF TRAINING

See Abstract Nos. 342-345, 349, 415

STAFF WELFARE

See also Abstract Nos. 336, 346, 414

332. SNYDER, S. M. **Controlling absenteeism can help curb hospitals' costs.** *Hospitals*, Chicago, 1978, Sept. 1, vol. 52, no. 17, pp. 102-103.

Absenteeism involves costs associated with sick pay, overtime pay, reduced staff productivity, and less effective patient care. Hospital management and supervisors must minimize absenteeism and its costs by thoroughly recording and evaluating staff attendance patterns, counselling and disciplining staff when necessary, and applying policies on attendance with consistency. Details of control measures taken at Copley Memorial Hospital, Aurora, Ill., are outlined, with particular reference to its paid personal time (PPT) incentive. PPT is subtracted from sick leave accrual, but it is not considered to be an absence unless it is unscheduled. It is used for family illnesses, medical appointments and other personal business. The absenteeism control programme rapidly achieved improvement. The absenteeism rate dropped from 3.9 per cent in 1975 and 1976 to 2.1 per cent or less for the last seven months of 1977. A saving of $34,000 in sick pay was achieved.

SPECIAL CLASSES OF STAFF

MEDICAL STAFF

See also Abstract Nos. 371, 446

333. MENDENHALL, R. C., GIRARD, R. A. and ABRAHAMSON, S. **A national study of medical and surgical specialties.** *Journal of the American Medical Association*, Chicago, 1978, Sept. 1, vol. 240, no. 9, pp. 848-852; Sept. 8, vol. 240, no. 12, pp. 1160-1168.

This is the first of a series of reports on the University of Southern California's national survey of the activities and practice characteristics of physicians in different specialties. The first part discusses the background, purpose and methodology. Basic

features of the research methods include: development of an instrument for collecting data; sampling of the physican population to ensure representative data; and creation and application of a scheme for classifying patient care services provided by physicians. The second part of the paper describes the survey instrument, which is a log-diary in which physicians kept a record of their actual professional activities. The log-diary focussed on use of physician time and patient encounters and used numerical coding of activities and encounters in a highly structured format. Compared with instruments used in similar studies, this log-diary appears to gather a greater breadth and depth of information about physician practice patterns.

334. MITCHELL, J. R. A. **Medical manpower—the joker in the student numbers game.** *World Medicine*, London, 1978, Oct. 4, vol. 14, no. 1, pp. 19-22, 25.

Although nearly all doctors in the United Kingdom work for a single employer, attempts to forecast manpower requirements have met with very little success. The major problems in medical manpower planning are: (i) what the function of a doctor is; (ii) the work contribution of women doctors; (iii) emigration; (iv) immigration; and (v) unknown retirement age of general practitioners. The number of United Kingdom graduates required can only be determined if two things are considered: a model for medical manpower; and the conflict between service and training. An abundance of highly qualified applicants for medical school and the heavy dependence of the NHS on overseas graduates have led to a substantial expansion of the medical school intake. Whether this leads to over- or under-production depends largely on three factors: (i) the nature of the tasks society asks doctors to perform and the finance it is prepared to provide; (ii) the relative contribution made by male and female doctors during their lifetime; and (iii) the extent to which medical immigration will change or be changed as the expanded medical school output moves into the NHS.

335. FUNKENSTEIN, D. H. **Medical students, medical schools and society during five eras: factors affecting the career choices of physicians 1958-1976.** Cambridge, Mass., Ballinger, 1978, xviii, 226pp. £10.40

This study reports the results of a project that examined the career choices of medical students and physicians in the United States from 1958 to 1976 to determine whether data collected at admission and matriculation could be used to predict the career choices of medical students. It evaluates the importance of various factors including: the preparation of students entering medical school, their values and lifestyle; the influence of their medical school; and the effects of government funding and the demands of society. The project placed special emphasis upon identifying factors affecting the choice of primary care and/or practice in a medically deprived geographic area. Special studies of career decisions by women students are also included.

336. MURRAY, R. M. **The health of doctors: a review.** *Journal of the Royal College of Physicians of London*, Tunbridge Wells, 1978, Oct., vol. 12, no. 5, pp. 403-415.

This paper reviews the literature on illness in doctors, with particular reference to mental illness. It covers drug dependence, alcoholism, depression and suicide aetiology of mental illness in doctors, interspecialty differences, treatment and outcome, and adverse effects on patients. A list of 65 references to the literature is included.

337. Een alternatief model-reglement voor de medische staf (I). **[An alternative specimen set of rules for medical staff.]** *Ziekenhuis*, Utrecht, 1978, Aug. 16, vol. 8, no. 16, pp. 420-427.

The paper is a criticism of a model set of rules for contracts between a hospital and its medical staff, published by the NZR (National Hospital Council) and the LSV (Medical Specialist Association), in Utrecht, 1977. The text of each of 10 articles is repeated, giving alongside an alternative version as well as some explanatory comment, viz: (i) definition of terms, such as 'hospital', 'hospital board', etc.; (ii) functions of medical staff with the emphasis on quality; (iii) execution of tasks, medical and organizational; (iv) staff membership, in particular the status of part-time and full-time specialists; (v) termination of staff membership; (vi) composition of the staff medical board, its election and rotation of members; (vii) tasks of the staff medical board, such as communications, co-ordination, meetings, etc.; (viii) type of meetings, scientific or domestic, their frequency and procedures; (ix) presence at meetings of hospital management and non-members; and (x) decision taking, voting rights and their procedures. Two extra articles have been added to the alternative version.

338. DONABEDIAN, A. **The quality of medical care.** *Science*, Washington D.C., 1978, May 26, vol. 200, no. 4344, pp. 856-864.

For the purposes of assessment and monitoring of medical care, the definition of quality must be expressed in the form of specific standards which are difficult to establish. Quality of care can be assessed by studying both the way care is given and its outcome. Models and 'criteria maps' are becoming more widely used in the United States in the effort to assess quality. This article outlines the developments which led to the involvement of federal governments in the USA in the provision of Medicaid and Medicare schemes, and thus to the sponsorship of the Professional Standards Review Organizations (PSRO's). The wide range of monitoring activities required of a PSRO when it is fully operational is described. At present, PSRO's are limited to in-patient care in institutions financed by specific insurance schemes. Their long-term effect on medical care and costs is hard to quantify, but should they fail to bring improvements, a more vigorous method of surveillance might be called for.

NURSING STAFF

See also Abstract Nos. 321, 372, 373, 414, 424, 426, 457

339. DANSK SYGEPLEJERÅD. Aldersfordelingen af Dansk Sygeplejeråds passive medlemmer: den reelle reserve afhjälper ikke manglen på sygeplejersker. **[Age distribution of the Danish Nursing Council's non-active membership: the numbers available in real terms are not sufficient to relieve the nursing shortage.]** *Sygeplejersken*, København, 1978, Oct. 4, no. 39, pp. 14-15.

Two tables to show the actual and percentage ratios of active to passive nurses in each age group (five-year intervals) demonstrate that by far the majority of nurses working in Denmark are aged 20 to 35, and 52 per cent of the 9,000 passive members of the Danish Nursing Association are over 55. Experience shows that this group is rarely interested in returning to nursing work, whatever inducements are offered. The

potential reserve of nurses, defined as passive nurses aged between 20 and 54, amounts to 4,300 persons, or 42 per cent of the Association's passive members. Of these women, three-quarters are over 35. Thus the reserve likely to seek employment in any future situation averages 13 per cent of the total number of nurses at work (32,900). The Danish Ministry of the Interior admits to a nursing shortage of 2,300 full-time nurses, or 3,500 women in all, on the basis of the usual distribution between full- and part-time nurses. The Danish Nursing Council estimates the shortage to be of much greater extent; but whatever its magnitude, it cannot be solved by drawing on an imaginary reserve of 9,000 potential (currently passive) recruits. The only solution is a dramatic increase in the capacity of the country's colleges of nursing.

340. SENIOR, O. E. **Nurse/patient dependency.** *Management Services*, Enfield, 1978, Oct., vol. 22, no. 10, pp. 4-8.

The calculation of the nursing establishment required to provide adequate care in any one ward is one of the nursing manager's most difficult problems. Factors influencing the numbers needed include: (i) fluctuation in workload; (ii) equipment and procedures used; (iii) ward design; (iv) numbers of supporting staff; and (v) whether the hospital is teaching or non-teaching. This article reviews the published studies on the problems of determining nursing establishments: a constant theme is the classification of patients into groups requiring the same degree of nursing care. The author herself uses a system which defines five care groups receiving one to five units of nursing care. Daily forms deal with the patients' capabilities and technical nursing requirements. The daily work load and the time required for it is then calculated by activity sampling. The number of nursing hours required in each ward and the value of a nursing unit can also be obtained. To staff the ward at about 90 per cent gives a good basis for working, but time must be allowed for sickness and study time when estimating the total establishment.

341. CARR, A. J. **The work of the nursing officer.** *Nursing Times*, London, 1978, Aug. 24, vol. 74, no. 34, occasional papers, pp. 89-92.

This survey gives a profile of a nursing officer's day. It analyzes how he/she spent the time and with whom it was spent. The survey shows how the nursing officer works, the time spent on tasks and what a nursing officer thinks of some aspects of his/her work. The author hopes that the results of the survey may provide sufficient information to allow nursing officers to consider their present work and make any changes if necessary.

342. SHEAHAN, J. **Educating teachers of nursing: the contribution of educational studies.** *Journal of Advanced Nursing*, Oxford, 1978, Sept., vol. 3, no. 5, pp. 447-455.

In this paper, the nature of educational studies is considered and discussed. Following some introductory comments on the history and development of education for nurse tutors, the paper deals with philosophy, psychology and sociology in relation to education. This is followed by a section on social psychology. The paper ends with a section on various aspects of the history of education.

343. WONG, S. **Nurse-teacher behaviours in the clinical field: apparent effect on nursing students' learning.** *Journal of Advanced Nursing*, Oxford, 1978, July, vol. 3, no. 4, pp. 369-372.

The aim of this study is to identify students' perceptions of teacher behaviours,

which either facilitate or hinder students' learning in the clinical field, and to determine whether there is a difference in the perceptions of first and second year students. The study is exploratory and descriptive in nature. The results indicate that students in the first year are particularly sensitive to how the teacher makes them feel, whereas students in the second year appear to be more concerned with the teacher's competency in teaching.

344. TURNER, L. **Discussion of a project on peer evaluation in the faculty of nursing, University of Toronto, Canada.** *Journal of Advanced Nursing*, Oxford, 1978, Sept., vol. 3, no. 5, pp. 457-473.

The aim of this project was to develop guidelines and involve all the faculty of nursing in the evaluation of teaching and learning. The main objective was to provide the opportunity to assist the faculty to become actively involved in self and peer evaluations. The findings of workshops indicated that evaluation posed a threat, especially in evaluating one's peers, but this threat tended to decrease through involvement with the process, which included group discussions and sharing feelings both in formally devised and in spontaneous informal encounters. Teachers identified problems in criteria selection and provided criticism. Each faculty member should take responsibility to keep self and peer evaluations and provide this data to administration if and when required.

345. HAGENDOORN, L. M. Het project scholing en wederinschakeling in ziekeninrichtingen (SWZ). **[The training and hospital re-employment (SWZ) project [to relieve the nursing shortage].]** *Ziekenhuis*, Utrecht, 1978, Oct. 18, vol. 8, no. 20, pp. 522-525.

To attract older married nurses back to work the Dutch Government financed a project of refresher courses for ex-nurses willing to work a minimum of 20 hours per week including shift duties which was set up in early spring 1977. A syllabus was drawn up for holders of A diplomas, taking into account modern medical and educational development. Contact was made with hospitals in the region of The Hague to assess demand. From an introductory meeting of 300 potential candidates 40 eventually attended the course, run in two groups of approximately 20, each providing 20 three-hour morning lectures including some practical lessons. Enthusiasm among attenders was high and the project was extended to other regions (Amsterdam and Rotterdam) by Spring 1978, with the addition of two extra mornings practical work. Questionnaires on the findings for the region of The Hague sent out in May 1978 were returned by 65 (92 per cent) of the nurses and 27 (53 per cent) of the hospitals. The results are given in a table. Twelve of the nurses had not taken work for various reasons. All had been satisfied with the course although there was some demand for more practical instruction. This was endorsed by the hospitals, which also showed some prejudice against part-timers because of hours, family commitments etc. The older nurses were popular with the patients. Continuance of the project will depend on regional demand.

346. JONES, D. **Need for a comprehensive counselling service for nursing students.** *Journal of Advanced Nursing*, Oxford, 1978, July, vol. 3, no. 4, pp. 359-368.

The responses to 'given situations' in a questionnaire administered to 50 nursing students reveal that they are conscious of high stress factors in nursing. Role conflict

is created when they are given instructions in the wards contrary to what they are taught in the schools of nursing. Some of the responses also indicate that learners may be developing attitudes which are contrary to good nursing practice as a protection from internal pressures. The author argues that the counselling needs of nursing students must be met by the provision of a comprehensive counselling service.

347. PACE, A. J. and GRIMSHAW, E. **Regional nurse staffing: a system for recording the utilization of nursing staff.** *Nursing Times*, London, 1978, Sept. 7, vol. 74, no. 36, occasional paper, pp. 101-104.

A simple data presentation system for use by nursing managers to evaluate the work of nursing staff in the Wessex Regional Health Authority is described. The system relies on the use of data that already exists within the health service which can provide general indicators of staffing levels and nursing workload. There is a discussion of the ways in which the data can be used, and the problems inherent in interpreting nursing workload measures. The system is not intended to replace more formal systems of measuring nursing workload, but such a cheap and simple system may encourage the wide use of standardized data measurement schemes while avoiding some of the difficulties of a more advanced approach.

348. JENNY, J. **A strategy for patient teaching.** *Journal of Advanced Nursing*, Oxford, 1978, July, vol. 3, no. 4, pp. 341-348.

A theoretical model is described whose particular emphasis is directed towards putting into practice the statements that 'effective teaching bridges the gap between information and practice', and, 'teaching is more than telling'. It concentrates upon nurse behaviours designed to actively engage the patient in learning, whereby he accepts his diagnosis or situation, projects the effects of presented therapy on his future life, and commits his intentions to practice. The model uses principles of learning derived from the perceptual approach and indicates the nurses' responsibilities. Four critical elements are identified: the patient's values; his perception of the disease threat; his perceived use of the prescription; and the help received from the nurse.

349. MARSH, N. **Teaching care to the carers.** *Nursing Mirror*, Sutton, 1978, Nov. 2, vol. 147, no. 18, pp. 20-22.

The quality of care is of paramount importance and involves much more than the performance of nursing skills. The patient's needs are: to retain his worth as a human being; for individualized care; for companionship; for support; and to be involved. If the student nurse is to be taught to care well as a listener, teacher, supporter and counsellor, then she must herself be made to feel 'cared for'. Her needs are: to be heard; to receive adequate information; and to have support and encouragement.

350. ALTSCHUL, A. T. **A systems approach to the nursing process.** *Journal of Advanced Nursing*, Oxford, 1978, July, vol. 3, no. 4, pp. 333-340.

The use of the nursing process based on a systems approach for psychiatric patients may be more productive than that based on problem-solving or activities of daily living. The lay concepts used in this approach are: (i) listing component parts of a system; (ii) defining the inside and outside aspects of systems, the outside being

described as the environment; (iii) changing the boundaries or the interface of various systems, as appropriate; (iv) observing the impact of the environment and especially of the nurse herself as part of the system or of the environment; (v) tracing input, output and throughput; and (vi) drawing distinctions between open and closed systems and accounting for a steady state in the system.

OTHER PROFESSIONAL AND TECHNICAL STAFF

See Abstract No. 416

ORGANIZATION AND ADMINISTRATION

See also Abstract Nos. 316-319, 337, 379, 417, 460

351. HOSPITAL MANAGEMENT SYSTEMS SOCIETY. COMMITTEE FOR PROPRIETARY CONSULTING FIRMS. **Selection and employment of management consultants for health care.** Chicago, American Hospital Association, 1978, vii, 55pp. $12.00

This book aims to improve hospital management's knowledge and understanding of health care management consulting and to consider what it is, what its strengths and capabilities are, and when and how to use it. The book is composed of a series of readings selected to reveal the best coverage of each subject area. The four parts consider: preliminary considerations; finding and selection of a management consultant; the engagement of the consultant; and methods of measuring results and impressions. Two appendices cover the codes of professional ethics of the Association of Consulting Management Engineers and the American Association of Hospital Consultants.

352. TRIVEDI, V. M. **Classification of short-term general hospitals for control and equity.** *Inquiry*, Chicago, 1978, Sept., vol. 15, no. 3, pp. 255-264.

The need for classifying hospitals in the United States into homogeneous groups has been renewed with the 1972 amendment to the Medicare and Medicaid law. The two most prominent methods are discussed briefly: that developed by the Social Security Administration; and the cluster analysis approach recently proposed by the American Hospital Association. The results of the classification of 94 short-stay general hospitals using the cluster analysis method are reported. The groups generated follow the same general pattern of differences as those existing among primary, secondary and tertiary care hospitals. This study indicates that cluster analysis is a promising technique for hospital classification, since it groups hospitals according to the natural pattern of the data rather than imposing artificial restrictions (and assumptions) that are essential in certain other statistical classification techniques. Even so, considerably more empirical experimentation will be required before cluster analysis can be affirmed as the ideal method; lines of further investigation are suggested.

353. BIJLHOUT, A. H. and BAALMAN, V. F. J. Het werken met organisatie-adviesbureaus in de intramurale gezondheidszorg. **[Working with management consultants in the hospital.]** *Ziekenhuis*, Utrecht, 1978, Sept. 6, vol. 8, no. 17, pp. 444-449.

Recent development in health care institutions, such as contraction of services,

shorter hospital stays, mergers, etc. as well as a growing trend to more integration of all health services, often lead to organizational problems with which the institutions find it increasingly difficult to cope. In the process of recognition and solution of these problems the following phases can be observed: (i) first signs of a problem; (ii) recognition of the problem; (iii) its description; (iv) the objective to be pursued; (v) strategy; (vi) solution; (vii) testing. The aid of management consultants should preferably be sought at an early stage. Three theoretical working models have been developed, viz. an expert model, an acceptance model and an action model in which an outside adviser can act as instructor, discussion partner and therapist respectively. In addition to requests for research, advice and implementation covered by the three phases mentioned above, there are requests for the development of a continuous process which includes problems of communication, rotas, co-operation, adaptation and contractions, intensification of nursing care, etc. Before deciding on a consultant it is advisable for an institution to contact several offices and assess their working philosophy, the personality of adviser, reaction to requests, proposed working method and reporting, costs and time. The work should then be specified in a clearly written contract.

354. PETERS, J. H. Naar een nieuwe bestuurs—structuur van het algemene ziekenhuis. **[Towards a new organizational structure in the general hospital.]** *Ziekenhuis*, Utrecht, 1978, Oct. 18, vol. 8, no. 20, pp. 536-539.

The paper refers to a report from the NZR (National Hospital Council) on two models for a more democratic system of hospital administration, viz.: (I) Board Council Model and (II) Commissioners Council Model. The report prefers model I. The paper prefers model II and discusses the problems. Both models have a basic common point of clearly defined powers for both board and management, so lacking in the present system. In model I a board council is to become the highest authority in the hospital administration, issuing directives to the management and having the final say. In model II the functions of board and management are strictly separated. The board decides all matters concerned with continuity of the hospital, such as investments, and acts as a supervisory body to the management. The author considers model I to be too much like the old system. There is a growing opinion that hospital management has become so complicated that it should not be left any more to medical, economic and nursing experts. A special training school for hospital managers is suggested. The paper does not agree with arguments that introduction of model II would be too big a step forward. Laws and statutes are flexible enough for such an introduction. A list of references is included.

355. Troms fylkes helseplan. **[Troms County health plan.]** *Norsk Sykehustidende*, Oslo, 1978, Sept., vol. 51, no. 9, pp. 208-209, 212-218.

The County of Troms has an area of 26,000 km^2, all lying to the north of the Arctic Circle, and a population estimated to total 154,500 in 1985, of whom 12,500 will be over 70. Transport is by road or fast motorboat. There are two hospitals, with 510 and 220 beds respectively, a military hospital, a 30-bed hospital hotel, 20 nursing homes with a total of 742 beds, eight cottage hospitals (122 beds) and two maternity homes (21 beds). The eight-bed alcoholic's clinic will be extended to 20 places. Health Region 5, which will comprise the counties of Finmarken, Tromsö and Nordland, and possibly

Spitzbergen, will have its regional functions fulfilled by Tromsö Regional Hospital. This will also serve as the county northern hospital (113,000 population), and Harstad Hospital will serve the southern 42,000 population. The County is to develop a psychiatric flying squad, which will conduct fieldwork, operate an observation and advisory out-patients service, inspect and direct the work of the County's mental institutions, and advise the County on administrative questions. Current facilities will all be expanded to the standards of coverage laid down by Parliament. The article concludes with a detailed list of all health facilities in the County, broken down into somatic, mentally handicapped, physically handicapped, and psychiatric care institutions.

356. LØNNUM, A. Medisinsk rasjonalisering. **[Rationalization of medical care.]** *Norsk Sykehustidende*, Oslo, 1978, Sept., vol. 51, no. 9, pp. 193-196, 198-200, 202-204.

Enormous sums are spent on the health sector, which is still regarded by the public as being slow, bureaucratic and inefficient. There are 22,100 somatic (i.e. non-psychiatric, social medical or rehabilitation) beds for a population of four million, i.e. the ideal cover of 5½ per cent. The impression that there is a shortage of beds is partly due to the wrong categories of patients being in them. Young doctors working in hospital demand to be paid as ordinary wage-earners while at the same time demanding free facilities for training to become highly paid specialists which is illogical. After the period of highly intensive care required following extensive surgery is over, patients can best be rehabilitated for a maximum of three months in 'hotel' (or B-) wards, with a staff ratio of two patients per employee. Such wards cost a fifth of the expense of a normal ward to run, and can save large amounts. Proper co-ordination of therapeutic facilities can triple the capacity of treated patients and eliminate queues, at very slight extra expense. In the future the general practitioner will have to take over a fair share of hospital work, thus breaking his isolation from his colleagues, expanding his facilities, and releasing himself and hospital doctors from the strain of being on call 24 hours a day. New ways of training and employing doctors, and of planning, building and running health institutions will have to be found if the service is to operate economically and rationally.

ECONOMICS OF HOSPITAL MANAGEMENT

See also Abstract Nos. 319, 322, 330, 361, 375, 408, 437, 440, 454, 455, 458

357. JACOBS, P., BAUERSCHMIDT, A. D. and FURST, R. W. **Hospital cost inflation and health insurance: a complex market model.** *Inquiry*, Chicago, 1978, Sept., vol. 15, no. 3, pp. 217-224.

The growth in third-party financing has largely been credited as the key factor influencing rising hospital costs. It has provided a new mechanism which has encouraged hospital expansion and which incorporates the behaviour of third-party payers, whose presence influences the market to take on a form far more complicated than the traditional two-group, demand-supply model. This paper presents an analysis of a so-called 'complex' hospital care market which incorporates the behaviour of the various groups in the system. It begins with a description of recent economic phenomena in the hospital care market and a brief summary of the traditional market explanation of

these events. A more intricate analysis is presented, focusing on the inflationary mechanism and the role of various groups in contributing to the mechanism. The effect of various other factors, such as government insurance plans and the tax treatment of hospital insurance premiums, is also studied. It is shown that, by itself, the market mechanism did not contain significant forces to counter the inflationary trends. Finally the forces that might have prevented the system from further inflation are discussed; the major factor in this respect appears to be government regulation of insurance companies.

358. **The cost of the NHS.** *OHE Briefing*, London, 1978, October, no. 7, pp. 1-6.

This paper examines the cost of the National Health Service (NHS) with the help of three tables and three graphs. The tables cover: (i) NHS expenditure as a proportion of the gross national product, 1949 to 1976 with estimates for 1977 and 1978; (ii) cost of the various services as a proportion to total cost, 1951 to 1976; and (iii) projected public expenditure by volume at 1977 price, 1977/78 to 1981/82. The graphs cover: (i) cost of the NHS in relation to the consumer price index and average earnings index, 1970 to 1978; (ii) NHS expenditure by services, 1967 to 1976; and (iii) index of growth of selected health activities, 1967 to 1976.

359. HELLINGER, F. J. **State rate review: a critical assessment.** *Hospitals*, Chicago, 1978, Sept. 1, vol. 52, no. 17, pp. 69-72.

The first state legislation for a rate setting programme was passed in New York State almost 10 years ago. Today there are 25 such programmes affecting about one-fourth of hospitals in the United States. This assessment of the schemes concentrates on experience in New York and Indiana. Discussions between rate regulators and hospitals are replete with debates on methodology, diverting interest from the cost impact of the rate setting bodies to the details of the process of rate setting. Some problems of the rate setting agencies are outlined. If state efforts are to be effective in controlling costs, new legislation that allows rates to be set within defined limits must be passed. This legislation must allow rates to be set so that the rate of increase in hospital costs is equal to, or a fixed proportion of, the rate of increase in the cost of all goods and services.

360. CRAIG, J. and KOLEDA, M. **Urban fiscal crisis in the United States, national health insurance, and municipal hospitals.** *International Journal of Health Services*, Farmingdale, N.Y., 1978, vol. 8, no. 2, pp. 329-349.

The fiscal stresses which many cities in the United States are currently experiencing, the problems of large-city local government hospitals and the future national health insurance scheme raise questions about the viability of major municipal hospitals. However, the diversity which characterizes the fiscal conditions of the cities and their responses to fiscal stress suggests that caution should be exercised when assessing the ability of cities to continue to maintain public hospital activities. Analysis of the effect of Medicaid on the use of municipal hospitals and the impact of prospective national health insurance schemes on the demand and supply of medical services suggests that municipal hospitals will continue to be important providers of health care services for many years.

BED OCCUPANCY, ECONOMIC USE OF BEDS

See also Abstract Nos. 411, 420

361. BANDYOPADHYAY, J. K. **Computer simulation in allocation design of a health-care delivery system.** *Journal of Clinical Engineering*, Long Beach, Calif., 1978, July/Sept., vol. 3, no. 3, pp. 285-291.

With the introduction of the concept of progressive patient care, most hospitals now encounter a heterogeneous flow of patients through the various service units. This complicates the problem of allocation of beds and other facilities and equipment. This paper describes the development of a simulation model by considering the flow of patients in a hospital as a multi-population immigration-birth-death process. The computer program for the simulation has been developed in GPSS (General Purpose Simulation Systems) language. Based upon this model, an algorithim has been developed for the allocation of beds to various service units using a search process combined with total systems simulation.

362. BROOKS, C. H. and HOFFMAN, J. A. **Type of ownership and Medicaid use of nursing-care beds.** *Journal of Community Health*, New York, 1978, vol. 3, no. 3, pp. 236-244.

Recent research on the association between type of ownership and use of nursing-care beds by public assistance patients has tended to be contradictory. This study tested the thesis that the association depends on the relative distribution of Title XIX-certified (Medicaid) skilled-care beds and intermediate-care beds between ownerships (proprietary and philanthropic). Since levels of nursing care and the operating costs of nursing homes are correlated positively, and public assistance programmes reimburse many nursing homes at lower rates than the charges made for private patients, one would expect a lower ratio of public assistance patients to total patients in the skilled-care than in the intermediate-care beds. This should be true for both types of ownership. Data obtained from proprietary and philanthropic long-term care homes in the Cleveland metropolitan area on 7,139 Title XIX-certified beds support this thesis. Additional findings show significantly higher Medicaid use of intermediate-care beds in proprietary homes. Three reasons are suggested: (i) proprietary homes are business enterprises and freely admit Medicaid patients to keep occupancy rates high, whereas philanthropic homes tend to be run as homes for the aged; (ii) philanthropic homes tend to attract more private patients through their better staffing, repair and links with the community; and (iii) proprietary intermediate-care homes are more assertive in maintaining relationships with county welfare departments.

APPOINTMENT SYSTEMS, WAITING LISTS

See also Abstract No. 453

363. **The management of waiting lists.** *Hospital and Health Services Review*, London, 1978, Oct., vol. 74, no. 10, pp. 382-384.

The most demanding responsibility of hospital administrators is the management of waiting lists for in-patient treatment. The administrator must decide what form the

list should take and ensure that it is kept up-to-date by the medical records staff. Patients should be admitted according to the degree of urgency their condition demands. Summaries should be extracted regularly to show the total waiting list situation in the hospital. These summaries should be shown to consultants, senior nursing staff, district and area management teams, and possibly local general practitioners. Some re-distribution of services may be called for as a result. The following may be helpful in resolving waiting list problems: (i) common waiting lists for one specialty; (ii) flexibility in the allocation of beds; (iii) forecasting of emergency bed needs; (iv) adequate discharge facilities; and (v) provision for short-stay care.

ELECTRONIC DATA PROCESSING

See Abstract Nos. 324, 361, 364-367, 381, 411, 418, 422, 423, 452

INFORMATION SYSTEMS

See Abstract Nos. 365-367, 418

ORGANIZATION AND METHODS, WORK STUDY

See Abstract No. 347

MEDICAL RECORDS

364. COLLEN, M. F. **Patient data acquisition.** *Medical Instrumentation*, Arlington, Va., 1978, July/Aug., vol. 12, no. 4, pp. 222-225.

Patient data can be obtained by direct interrogation; physiological measurements; and the analysis of specimens, signals and images. When computers are used to acquire information directly from the patient, difficulties arise from the lack of standardized patient medical history, the complexities of natural language processing and the problems of man/machine communication. A variety of data input devices has been used to obtain the patient's medical history. Most of these devices have been used in multiphasic health testing programmes.

365. GABRIELI, E. R. **Medical information system, health records, and knowledge banks.** *Medical Instrumentation*, Arlington, Va., 1978, July/Aug., vol. 12, no. 4, pp. 245-247.

A medical decision system with the capacity to answer questions in an interactive mode to help in clinical decisions is described. The system consists of four modules: (a) clinical case history bank; (b) pooled clinical experience bank; (c) clinical knowledge bank; and (d) biomedical research bank. An encoder transforms input natural language into codes and translates output into natural language. The physician can ask for his patients' files, ask for clinical experience in similar cases, or ask for related textbook knowledge, research findings or speculations. All four modules have been tested as prototypes. Co-operation is needed in order to establish a national medical information network and to reorient clinical and academic medicine.

366. JENKIN, M. A. and others. **Clinical patient management and the integrated health information system.** *Medical Instrumentation*, Arlington, Va., 1978, July/Aug., vol. 12, no. 4, pp. 217-221.

The technological advances in the use of computers in clinical medicine are identified. The essential skills required to use the computer in clinical medicine involve understanding which data are appropriate for any given patient care system, and the ability to extract enough information to make the correct management decision. The value of the computer has less to do with the internal intellectual processes of diagnosis than with its contribution to the support of clinical patient management. Methods by which the computer is improving clinical decisions are reviewed. This is a trend towards integrating various independent sub-systems, so that expensive resources can be used to their maximum for patients' needs.

367. RODRIGUES, D. R. J., ARCÓN, L. C. and PIMENTEL, L. A. A. Estado actual del sistema de control de pacientes del Hospital das Clínicas. **[The present status of the patient control system of the Hospital das Clínicas, São Paulo, Brazil.]** *Boletin de la Oficina Sanitaria Panamericana*, Washington, D.C., 1978, June, vol. 84, no. 6, pp. 493-504.

This report describes the computer-based patient care system of the Hospital das Clinicas, São Paulo. The computer system is a modular medical information system with clinical, administrative, public health and research applications. The advantages of the system are relevance, rapid access, and control and efficiency in the retrieval of information. The system may serve as a model of operational integration which may be applied to regional centralization of medical information.

LEGAL ASPECTS OF HOSPITAL ADMINISTRATION

See also Abstract Nos. 374, 461

368. PASCAL, A. M. **Hospital security and safety.** Germantown, Md., Aspen System Corporation, 1977, xii, 160pp. $15.75

The aim of this book is to present the basic requirements for effective hospital security in the United States and the methods for fulfilling these requirements. The book is in three parts: organizational requirements; security systems and controls; and responsibilities of the security staff. Aspects considered include: identification of needs and priorities; physical security; internal financial security; emergency security; inter-departmental co-ordination; investigations and report writing, apprehensions; instructions manual; and posts and patrols of the security guard. Three appendices consider: bomb threats and search techniques; general information from the controlled substances inventory list; and a manual for the general practitioner: an information outline of the Controlled Substances Act of 1970.

369. AMERICAN HOSPITAL ASSOCIATION. SPECIAL COMMITTEE ON THE REGULATORY PROCESS. **Hospital regulation: report.** (Chairman: T. Stewart Hamilton) Chicago, Ill., American Hospital Association, 1977, x, 188pp. $5.00

This report is the result of more than a year of study into regulatory activities

affecting hospitals in particular and the health care industry in general in the United States. There are 10 chapters which cover: history of health care regulation; the hospital industry's view of regulation; criteria for effective regulation; special problems of health care regulation; health planning regulation; utilization regulation; hospital facilities regulation; hospital payment regulation; the legislative and the rule-making processes; and recommendations and summary of the report. The study committee also assessed the likely success of regulatory solutions to the problems of health care cost inflation and of increased total health care expenditures. The volume includes three case histories of the establishment of major health regulations; the report of the advisory panel on the regulation of hospital payment; and a summary of the Partnership for Action Scheme. A list of references (pp. 139-143) is also included.

370. SPELLER, S. R. **Speller's Law relating to hospitals and kindred institutions.** 6th edition, edited by Joe Jacob. London, H. K. Lewis & Co., 1978, vii, 805pp. £25.00

The changes in the law relating to hospitals during the past seven years have justified a new edition of this book. Major alterations are: the re-organization of the health service; the phasing-in of the separation of the private and public sectors of medicine; the bringing into force of further sections of the 1968 Medicines Act; the creation of the Health Service Commissions; the passage and repeal of the Industrial Relations Act 1974; and the changes made in the structure of the law relating to safety at work. The new edition includes 50 new statutes, 120 new statutory instruments and 130 new cases. The 28 chapters are supplemented by seven appendices on: the National Health Service Act 1977; other statutes; sundry statutory instruments and departmental circulars; operations and other procedures—forms of consent, responsibility in investigations on human subjects; and damage to unborn children.

371. DUKE LAW JOURNAL. **Medical malpractice: the Duke Law Journal Symposium.** Cambridge, Mass., Ballinger Publishing Co., 1977, 292pp. £10.00

The thoughts of leading writers on the medical, legal, insurance and sociological aspects of medical malpractice have been collected into one volume. The articles include: an explanation of the problems which have beset medical liability insurers; a discussion of the potential effect of changes in the present malpractice system on the quality of medical care; the malpractice problem in the context of the emerging Health Maintenance Organization (HMO) and National Health Insurance; an over-view of the sociological phenomena which have contributed to the present crisis; and two major proposals for changes in the system of compensating the victims of treatment-induced injury. In addition, the *Duke Law Journal* has provided its own analysis of state legislative responses to the medical malpractice crisis.

372. DAVIS, A. J. and AROSKAR, M. A. **Ethical dilemmas and nursing practice.** New York, Appleton-Century-Crofts, 1978, ix, 238pp. £7.85

This book attempts to bring ethics more into the mainstream of nursing education and nursing practice in the United States. The aspects considered include: health care ethics; ethical approaches; professional ethics and institutional constraints; rights of patients; informed consent; abortion; dying and death; behaviour control; mental retardations; public policy; and selected examples of ethical dilemmas. A select list of references is included after each chapter.

373. PERRY, S. E. **Managing to avoid malpractice.** *Journal of Nursing Administration*, Wakefield, MA., 1978, Aug., vol. 8, no. 8, pp. 43-47; Sept., vol. 8, no. 9, pp. 16-22.

In response to the increasing number of lawsuits against nurses and their employers, measures must be taken to improve patient satisfaction and reduce the probability of accidents that may result in litigation. Careful design of and adherence to employer guidelines for the nursing department, staff policies that provide for competent, satisfied health staff, and proper conditions for nursing practice will provide the nursing manager with some assurance that she is working as a reasonable, prudent manager to avoid malpractice. She can ensure that the care given is accurately documented and the privacy of patients is preserved, that incidents are properly reported and appropriate action taken, and that trends in incidents are detected and corrected. Stressing the importance of interpersonal relations skills, she can encourage good nurse-patient relationships and ensure a safe, pleasant environment. In the event of a lawsuit she can apply sound, prudent management methods to mitigate the reaction that may occur. Thus, preventive and defensive nursing practice promoted by a knowledgeable nurse manager can alleviate or solve the kinds of problems that could end up in court.

FINANCE AND ACCOUNTING

COSTS

See also Abstract Nos. 331, 358

374. DRAKE, D. F. and others. **Deciphering the price tag on government regulations.** *Hospitals*, Chicago, 1978, Sept. 1, vol. 52, no. 17, pp. 62-65.

A study in the Carolinas and Michigan indicates that about one and a half to two per cent of total hospital costs is spent on complying with regulations. An estimate for the more heavily regulated state of Massachusetts is three and a half to four per cent. Although these estimates may seem low, it is important to remember that the indirect effects may be larger and that the rate of increase in regulatory costs is likely to rise much faster than health care costs. It has been predicted that the cost of operating federal regulatory agencies will double between 1974 and 1979 and estimated that the ratio between federal regulatory expenditures and the total compliance cost is more than 20 to one. Under these circumstances, it is not only prudent for hospitals to participate in further studies of the cost of regulatory compliance, but to recognize that they have a clear responsibility for doing so in the interests of patients, communities, and the public. A method of measuring the cost of compliance with regulations has been developed by the American Hospital Association.

FINANCE

See also Abstract Nos. 359, 360, 362

375. WORTHINGTON, P. N. **Alternatives to prepayment finance for hospital services.** *Inquiry*, Chicago, 1978, Sept., vol. 15, no. 3, pp. 246-254.

The demand for hospital services in the United States is financed to a major extent

by an arrangement referred to as prepayment or hospital insurance. Despite allegations and reports that prepayment results in wasted resources, few attempts are made to challenge it directly. In this paper, the basic administrative features and implications of prepayment, as it is widely applied, are first discussed. Reluctance to abandon prepayment is based on the belief that it is necessary in order to remove financial barriers to the expression of demand. Analysis indicates that this defence is faulty since it is predicated on an erroneous interpretation of the consumer's budget constraint. Once the confusion is removed, alternatives to prepayment appear obvious. The alternative proposed here is a form of credit union, which is briefly illustrated for the empirical context of a group composed of a working population, such as a trade union. Instead of irretrievably sinking premium payments to a hospital insurance plan, the same amounts would be paid to the account of the worker in a fund, from which he could draw on his balance or borrow to pay hospital bills only. Upon retirement or leaving that employment any balance would become his personal private property (or, in the event of death, part of his estate). Finally, the special problems of groups typically covered by public programmes (elderly, handicapped, chronic poor) are considered.

376. HATCHER, G. H. **Canadian approaches to health policy decisions—national health insurance.** *American Journal of Public Health*, Washington, D.C., 1978, Sept., vol. 68, no. 9, pp. 881-889.

This paper examines the relevance to the United States of Canadian experience, with particular reference to: universal access to care with dignity; the availability of data; integration of health care system controls; shrinking the hospital system; and manpower policies. Three points are made regarding the Canadian approach: (i) policies have been hammered out primarily in dialogue between the political parties and as a result reflect public interest rather than a series of concessions to private interests; (ii) policies have been essentially pragmatic and incremental, rather than based on a broad ideological or systems approach; and (iii) the Canadian approach to universal insurance has been the cornerstone of most other major health policies. Universal free health care in Canada, run by the government, costs only one fourth as much to administer as the United States co-insurance public/private system. All health care in Canada costs only about three-fourths as much as in the United States. Finally, available health status measures rate Canadians as healthier than white Americans, although it would be rash to attribute this to their health care system alone.

377. KRONENFELD, J. J. **The Medicaid program and a regular source of care.** *American Journal of Public Health*, Washington, D.C., 1978, Aug., vol. 68, no. 8, pp. 771-773.

Data from Rhode Island were examined to discover the relationship between the source of medical care and total income, race and source of payment. Most non-white people used health centres and emergency departments as a regular source of medical care, while 91 per cent of whites used a private physician. Sixty-eight per cent of non-whites, 66 per cent of whom fall into the low-income group, received Medicaid to help pay for medical costs, as against six per cent of whites. Both whites and non-whites of the low-income group receiving Medicaid used a place rather than a physician as a regular source of care. Thus, despite moves towards equality, disadvantaged groups

still have distinctive patterns of obtaining care. Further research is needed to discover whether these people are receiving quality care in a manner convenient to them.

SUPPLIES AND STORES

SUPPLIES

378. MARSTEIN, E. Forsyningsproblematikken ved sykehuse. **[Supplies problems in hospital.]** *Norsk Sykehustidende*, Oslo, 1978, Aug., vol. 51, no. 8, pp. 178-181.

The number of items in use in hospitals has increased explosively in recent years. The traditional unco-ordinated ordering system, whereby the Sister sends in requisitions, which are countersigned by the central office and sent on to the supplier, is expensive and inflexible. Several hospitals have established the post of purchasing officer, but this system only works if he co-ordinates purchases and does not merely send requisitions on. The hospital supply officer must be trained in the supplies branch as well as being an experienced buyer. There is also far too little co-ordination between the various hospitals' buyers, and the result is too many synonymous products, too much expensive buying in small quantities, scattered stores tying up capital, time wasted in ordering and waiting for delivery, and lack of detailed information regarding the hospital's overall consumption of supplies. A consumer committee should be set up consisting of administrators (purchasing officers) and consumers (ward sisters) whether or not the hospital operates a central supply service. This committee can standardize requirements and keep prices down. Orders, invoices, bills and payments can be simplified and reduced in number, at the same time as the range of synonymous products is reduced. At present Norway shows far too little interest in this field, where Denmark and Sweden lead the way.

379. GRIMSGAARD, Ø. H. Er tiden inne for å realisere sentralforsyning i sykehus og helseinstitusjoner? **[Has the time come to introduce centralized supply systems in hospitals and health establishments ?]** *Sykehuset*, Oslo, 1978, vol. 41, no. 5, pp. 257-261.

The Norwegian Hospitals Association became interested in the idea of central supply in 1969, and adopted a report recommending its introduction in 1971. The system has been in operation in the town of Aalesund for some years, and also in Sweden and Denmark, whilst in England it is unthinkable that a health institution should not be associated with an organized central supply service. Sufficient good examples are to be found in existence in practice and in the literature, and the money is available in the form of block grants to counties, for the system to be applied in Norway without delay. The supply service should be localized in one of the largest hospitals in a given county, and must be under the control of an elected consumers' council, who decide purchasing policy. The advantages are: (i) all one needs to do to get an item is to requisition it, instead of having to advertise for tenders and then order it; (ii) storage systems are well-tried and ready to be put into operation; (iii) records of stock in hand are always available; (iv) records of consumption can be prepared if required; and (v) bills, etc., can be printed whenever necessary. The system involves a great saving of time and money in accounting and storage control. The danger is that a bureaucratic county purchasing administration will be set up which has exactly the opposite effect

to that desired: lengthening the ordering chain and holding up supplies. A satisfactory central supply system can only be set up if keen staff are employed.

CATERING, DIETETICS, KITCHENS

HOSPITAL CATERING

See Abstract No. 389

DIETETICS IN THE HOSPITAL

380. CHAPMAN, E. M. **The expanding role of the paediatric dietitian.** *Journal of Human Nutrition*, London, 1978, Aug., vol. 32, no. 4, pp. 297-302.

At the Adelaide Children's Hospital, South Australia, the paediatric dietitian is a member of the team concerned with the treatment of child abuse, as problems with feeding are often involved. The dietitian helps the mother to find food which is both nutritious and acceptable to the child. Dietitians from the hospital play an important part in educating the community about nutrition through radio and television programmes, newspapers and women's magazines. They also give a consultative service to the Regency Park Centre for 200 handicapped children. Special attention is given to the prevention and treatment of obesity. Education involves house-mothers, parents and physiotherapists, and group sessions are held with the children. The hospital hopes to extend its dietetic service to the Centre and is also planning to provide a service to a nearby small adult hospital.

381. GOODWIN, R. and WEINSTEIN, S. **Computerized food service as a patient support system.** *Medical Instrumentation*, Arlington, Va., 1978, July/Aug., vol. 12, no. 4, pp. 230-232.

The use in dietetics of an operations support system and of an information system is compared. The advantages of using a computerized dietary system over a manual system are outlined. The use of a flexible, data-independent information service for inventory and productional control result in a saving in labour costs and clerical time. Nutritional analysis can be extended to more patients. As the use of computers in dietetics increases, the dietitian can be freed to spend more time on the nursing units, interact with other health care team members and provide more patient consultation and education.

KITCHENS

See Abstract No. 382

HYGIENE IN THE HOSPITAL KITCHEN

382. MENDES, M. F., LYNCH, D. J. and STANLEY, C. A. **A bacteriological survey of kitchens.** *Environmental Health*, London, 1978, Oct., vol. 86, no. 10, pp. 227-231.

A survey was carried out of the bacterial contamination of 100 kitchens in England,

Scotland and Wales, in a variety of premises. The number of swabs taken from each kitchen varied between 30 and 100, the total number of swabs taken throughout the survey was approximately 5,000, giving an average of 50 swabs per kitchen. Twelve per cent of the surveys were carried out in hospitals. The results identify surfaces of highest risk to health. They highlight the relationship between bacterial contamination and the type of task being carried out, and indicate the extent of cross-contamination. On the basis of the survey data, some practical bacteriological standards are proposed.

LAUNDRIES AND LINEN SERVICE

HOSPITAL LINEN AND TEXTILES

383. WINTHER, B., JENSEN, H. J. and BRUUN, F. Operationskittel med plastindlæg ad modum Thisted: plastik i kitlen beskytter operationsfeltet. **[Plastic-lined surgical wear, as developed at Thisted Hospital, is a protection against bacterial transfer in the operating theatre.]** *Sygeplejersken*, København, 1978, Aug. 30, no. 34, pp. 12-13.

Patients undergoing surgery must be protected against infection from operating staff. Nonsterile aprons are frequently worn, even while washing hands, and their only effect is to protect the operator. Impermeable disposable overalls are very expensive, besides being very uncomfortable to work in. Thisted Hospital has introduced a plastic lining as a partial solution to these problems. Ordinary canvas overalls are used, with an interior lining of the usual anti-static (GNISTFRI) blue plastic sheeting attached by seven small pieces of autoclave Sellotape prior to sterilization. The overalls are folded carefully to ensure that the plastic does not come into contact with plastic, or it would stick. Theatre staff remove the plastic sheeting before sending the soiled wear to the laundry. The plastic prevents blood soaking through to operators' bodies, and also inhibits the transmission of bacteria from the surgeon to the site of the surgical operation. The invention is illustrated in three photographs and a diagram.

HYGIENE IN THE HOSPITAL

384. LAVILLAUREIX, J. L'hygiéniste, face à l'architecture des hôpitaux. **[The hospital hygiene officer and architectural design.]** *Gestions Hospitalières*, Mantes, 1978, Oct., no. 179, pp. 729-733.

With the help of eight diagrams, a hospital hygienist presents his analysis of the movements of all categories of user in the operating block, the central sterilizing department, the laundry, and the intensive care unit. His main thesis is the importance of separating sterile and soiled routes. In addition, he suggests that the recovery room should be close to the theatre and the central sterilizing department immediately above or below the operating block. Surfaces in all these high-risk areas should be easy to clean and disinfect.

HOSPITAL INFECTIONS

385. FAHLBERG, W. J. and GRÖSCHEL, D., editors. **Occurrence, diagnosis and sources of hospital-associated infections.** (Handbook on Hospital-associated Infections Vol. 1). New York & Basel, Marcel Dekker, 1978, 138 pp. Sw.fr.45

The nature and type of nosocomial infections have altered with the changing concept of the hospital and its function in the community. This book introduces the reader to the problem of nosocomial infections, their occurrence, diagnosis and causes. Aspects considered include: a brief historical appraisal of hospital infections; general principles for the clinical recognition of hospital-acquired infection; general principles for the laboratory diagnosis of hospital-associated infections; general principles for therapy of hospital-acquired infections; and sources of hospital-associated micro-organisms. A summary and list of references are included after each section.

386. ROYAL COLLEGE OF NURSING. **Acquired infection in the NHS and its prevention: a suggested code of safe practice for occupational health and NHS staff.** London, Royal College of Nursing, 1978, 31pp. £0.60

These papers were written as suggested guidelines for the prevention of acquired infection in both patients and NHS staff. Aspects considered include: immunization; tuberculosis; viral hepatitis; salmonellosis and enteric fevers; staphyloccal and streptococcal screening; rubella screening and vaccination of staff; and bacteriological monitoring of food handlers. A reference table on the occurrence of various diseases and nursing procedures is included.

387. BUXTON, A. E. and others. **Nosocomial respiratory tract infection and colonization with** *Acinetobacter calcoaceticus. American Journal of Medicine*, New York, 1978, Sept., vol. 65, no. 3, pp. 507-513.

An outbreak of respiratory tract infections due to *Acinetobacter calcoaceticus* in an 11-bed intensive care unit provided an opportunity to study clinical and epidemiological characteristics of such infections. Retrospective studies showed that *A. Calcoaceticus* in sputum was significantly associated with endotracheal intubation and continuous positive pressure ventilation. After control measures had interrupted the outbreak, a prospective microbiological investigation demonstrated that one third of the hospital's staff had transient hand colonization with multiple strains of *A. Calcoaceticus*; pharyngeal, vaginal and rectal carriage was rare. A pulmonary therapist with chronic dermatitis had persistent hand colonization with the epidemic strain, and he had contaminated respiratory therapy equipment. Cross contamination of respiratory therapy equipment occurred while in use, but no other inanimate reservoir was demonstrated. Although previous studies have implied that the inanimate hospital environment has unique reservoirs of *A. Calcoaceticus*, these reservoirs were not implicated in this outbreak. Human skin must be considered an important reservoir of *A. Calcoaceticus*.

388. MARRIE, T. J. and others. **Prolonged outbreak of nosocomial urinary tract infection with a single strain of** *Pseudomonas aeruginosa. Canadian Medical Association Journal*, Ottawa, 1978, Sept. 23, vol. 119, no. 6, pp. 593-596.

Sixty-six patients in an urology ward became infected with a single strain of *Pseudomonas aeruginosa* between December 1975 and September 1977. The catheterized

urinary tract was the site of the infection in 59 patients. After one infected patient had spent two weeks in the surgical intensive care unit (SICU), the infection was spread by patients being discharged from the unit to surgical wards throughout the hospital. Urine measuring containers and urometers used in the SICU were the source of the *Pseudomonas aeruginosa*; daily sterilization of this equipment ended the outbreak, but urometers continued to cause sporadic outbreaks in some wards. Five patients were still infected when re-admitted to hospital three to 12 months later and represented an additional source of infection.

SOURCES OF INFECTION

See also Abstract Nos. 387, 388

389. CASEWELL, M. and PHILLIPS, I. **Food as a source of *Klebsiella* species for colonization and infection of intensive care patients.** *Journal of Clinical Pathology*, London, 1978, Sept., vol. 31, no. 9, pp. 845-849.

This study reports the results of a survey of an intensive care unit (ICU) to explore more fully the role of contaminated food as a source for *Klebsiella* infection and colonization. Samples of patient and staff meals were examined. None of the hot foods yielded *Klebsiella*, but 55 per cent of ice-cream and cold sweet samples and 68 per cent of nasogastric feeds were contaminated. Hospital kitchens were the immediate source of contamination, especially liquidizers, ice-cream utensils, dishcloths and working surfaces. An overnight delay between preparation and ingestion of nasogastric feeds provided an opportunity for multiplication of contaminating organisms. Over a four-week period there was a correlation between kitchen, food, faecal and clinical serotypes of *Klebsiella*. Serotypes ingested by intensive care patients occurred more frequently in clinical isolates from intensive care patients than from other hospital patients. Individual ICU patients rarely acquired infection or colonization with the type they had ingested themselves, but rather one that had been fed to some other patient on the ward, suggesting that there must be a route of transmission from one patient to the next—possibly via staff hands.

PREVENTION AND CONTROL

See Abstract Nos. 383, 384

AIR HYGIENE

390. HALLIDAY, M. M. and CARTER, K. B. **A chemical adsorption system for the sampling of gaseous organic pollutants in operating theatre atmospheres.** *British Journal of Anaesthesia*, London, 1978, Oct., vol. 50, no. 10, pp. 1013-1018.

The development of an air sampler and its use in measuring organic pollutants in operating theatre atmospheres are described. Air was sampled continuously during an operating session and the results obtained represent the average pollution at the sample site during that session. The technique involved the chemical adsorption of organic vapours to polymer beads and pollutants thus trapped could be stored for several days before thermal desorption and analysis by gas chromatography. The three most abundant organic pollutants were ethanol, propan-2-ol (ispropanol) and halothane.

391. ENDERBY, D. H., BOOTH, A. M. and CHURCHILL-DAVIDSON, H. C. **Removal of anaesthetic waste gases: an inexpensive anti-pollution system for use with pipeline suction.** *Anaesthesia*, Oxford, 1978, Oct., vol. 33, no. 9, pp. 820-826.

This paper describes a system developed at St. Thomas' Hospital, London, for removing waste anaesthetic gases from operating theatres. It uses the hospital's pipeline vacuum system with a simple T-piece added. The circuit expiratory valve or ventilator exhaust port is connected to one limb of the T-piece by a 1.2 m length of standard wide-bore anaesthetic tube. The second limb of the T is open to the room atmosphere via a similar length of the same tube. The third limb is connected to vacuum suction via a wall suction unit (high suction controller). Total cost of the system is that of purchasing the wall suction units if they are not already in use, currently priced at £74.50 per unit. Assessment of the system has shown that it is safe, efficient in maintaining low levels of theatre pollution, and has no harmful effects on the hospital vacuum system.

PERSONAL HYGIENE OF THE PATIENT

392. WILLINGTON, F. L. **Use of non-ionic detergents in sanitary cleansing: a report of a preliminary trial.** *Journal of Advanced Nursing*, Oxford, 1978, July, vol. 3, no. 4, pp. 373-382.

A preliminary trial was carried out to establish the most suitable hygienic wipe for sanitary cleansing in incontinence and to study and compare the difference between cleansing with soap and non-ionic detergents in incontinent patients. Four non-ionic detergents were tested against National Health toilet soap in 290 incontinent episodes. Other observations were made on the skin condition following cleansing, the ease of cleansing, odour control, detergency and allergenicity. The results indicated that a skrim wipe was best for this purpose and that the non-ionic detergent cetomaciogol 1000 B.P.C. was preferred to all other creams and soap in the time taken for cleansing. The condition of the skin was recorded as excellent and the figures indicated possible saving of 20 per cent in nursing time.

SAFETY MEASURES

See Abstract No. 323

ACCIDENTS GENERALLY

See also Abstract No. 395

393. ABBEY, T. **Accidents to patients in the operating theatre.** *Nursing Times*, London, 1978, Nov. 2, vol. 74, no. 44, Theatre nursing supplement, pp. 5-6, 8.

Accidents occur even in establishments of very high repute and with staff of the highest calibre. No-one is infallible and it can be said that most accidents are caused

by human error. There are four high risk areas for the patient in the operating suite where mistakes can happen: reception area; anaesthetic room; operating theatre; and recovery room. The main problem in the reception area is that of identification, and extensive checking is essential. Mishaps in the anaesthetic room can only be prevented by observing a strict code of practice covering checking of drugs and proper use and testing of equipment. Precautions in the theatre itself should cover the safe and proper positioning of patients, preparation of the operation site, care with specimens, and swab, instrument and needle checks. Recovery room staff must be trained in all aspects of resuscitation and an alarm bell system is essential.

394. LEOPOLDT, H., HAWTON, K. and NEW, R. C. **Nursing staff accidents in a psychiatric hospital.** *Nursing Times*, London, 1978, Oct. 26, vol. 74, no. 43, occasional papers, pp. 121-123.

A six-month survey of nursing staff accidents was undertaken in a psychiatric hospital with an in-patient population varying between 230 and 350 and a day patient population varying between 160 and 180 per day. The vast majority of accidents were caused by aggressive acts of patients and resulted in minor injuries. The highest accident rate was found on long-stay/rehabilitation units and among unqualified nursing staff. The causes and implications are discussed, particularly with regard to therapeutic needs in different treatment areas, the type of shift system, and nursing staff training. The need is emphasised for particular training of the unqualified nurse in the skills of handling potentially aggressive patients.

ELECTRICAL ACCIDENTS

395. YOO, J. H. K. and BRODERICK, W. A. **Development of instruction in hospital electrical safety for medical education.** *Journal of Clinical Engineering*, Long Beach, Calif., 1978, July/Sept., vol. 3, no. 3, pp. 263-270.

Although hospital electrical safety is receiving increased attention in the literature of engineers, it is not, at present, reflected in the curricula of medical schools, possibly because biomedical and/or clinical engineers knowledgeable in electrical safety are not usually trained to teach. One remedy is to combine the knowledge of engineers with that of instructional developers to design a systematic curriculum for a course in hospital electrical safety. This paper describes such an effort at the University of Texas Health Science Center, San Antonio. A biomedical engineer and an instructional developer designed an instructional module in hospital electrical safety; the engineer taught the module, and both evaluated the results. The process and outcome of their collaboration are described. The model was effectively applied in the classroom as a four-hour segment for first-year medical students.

FIRES AND FIRE PREVENTION

396. DOLLINGER, R. Le problème de l'évacuation des établissements sanitaires en cas d'incendie. **[The problem of evacuating health buildings in case of fire.]** *Techniques Hospitalières*, Le Kremlin-Bicêtre, 1978, Oct., vol. 33, no. 397, pp. 43-49.

This is a critical analysis of the problem of evacuating bedridden patients in the event of fire. The author first considers anti-fire measures such as the central monitoring of

faults in the electrical, heating, and ventilation systems, staff training, and the use of non-inflammable materials. Measures to prevent a fire from spreading include compartmentalization of the building, and the installation of fire doors, fire walls, protected staircases, and automatic sprinklers. Instead of evacuating the patients, the best solution of all would be to make each room fire-resistant, provide a curtain of water inside the door, and supply each bed with breathing apparatus and a pressure reducer. The article is illustrated with four diagrams of staircases and a protected room.

397. Brandsikkerheden vigtigt led i sikkerhedsarbejdet: hver medarbejder har bestemte opgaver i tilfälde af brand. **[Fire precautions are an important factor in the safety organization's work: every colleague has definite duties in case of fire.]** *Sygeplejersken*, København, 1978, Oct. 18, no. 41, pp. 17-18.

At Bispebjerg Hospital, Copenhagen, safety personnel have a series of responsibilities, amongst which are fire precautions. The safety organization at Bispebjerg Hospital has covered the wards, pharmacy and porters' fields since 1972; the sister in charge of each ward heads each group, and the staff elects one safety representative. The groups are shown an instructional film '*Hospitalsbrand*' (Hospital Fire), after which the procedure to be adopted in case of fire is planned. Standardization and siting of fire fighting materials are planned for each storey, and the groups check the materials once a quarter. At the same time they check fire doors, escape routes, electrical relays, fire extinguishers, signs and instruction sheets. New hospital employees are given fire fighting instruction, and if a member of the safety staff leaves, the new member takes over all his responsibilities. The Copenhagen Fire Brigade has proposed a series of improvements in the fire-proofing and fire fighting arrangements. The article is illustrated by a staff photograph and reproductions of two of the forms in use.

PLANNING FOR MASS EMERGENCIES

398. KRELL, G. I. **Managing the psychosocial factor in disaster programs.** *Health & Social Work*, New York, 1978, Aug., vol. 3, no. 3, pp. 139-154.

In developing disaster plans, hospital administrators are not always aware that the psycho-social needs of victims and their families can be greater than their medical needs. The common characteristics of the psycho-social reactions to disasters are outlined. The assistance required to meet the needs is discussed under three heads: resource requirements; adjustment requirements; and official agency requirements. An eight-point plan for developing a hospital disaster psycho-social programme is presented.

RADIATION HAZARDS

399. LUSHBAUGH, C. C., HÜBNER, K. F. and RICKS, R. C. **Medical aspects of nuclear radiation emergencies.** *Emergency*, Carlsbad, Calif., 1978, Sept., vol. 10, no. 9, pp. 32-35.

The greatest problem in developing nationwide emergency preparedness for radiation accidents is caused by their infrequent occurrence—only a few medical centres (possibly four) in the United States have ever faced the problem of caring for radiation accident cases more than once. This paper discusses procedures at the scene of the accident,

during transport of patients, and at the hospital. Emphasis is placed on the protection of health staff. Brief details are given of training programmes.

400. METTLER, F. A. **Emergency management of radiation accidents.** *Journal of the American College of Emergency Physicians*, Lansing, 1978, Aug., vol. 7, no. 8, pp. 302-305.

Radiation accidents are rare, but may occur at a nuclear power plant or related industry. Emergency staff should be prepared to handle radiation accident victims when they first reach hospital. Guidelines for such emergencies used in over 15 hospitals in the United States include: (i) advance notification to the hospital of the arrival of a radiation accident victim; (ii) provision of a designated treatment area with direct outside access; (iii) provision of operating room attire; (iv) initial performance of life-saving functions; (v) covering of open wounds and removal of clothing; (vi) search for contamination with a radiation detector; (vii) washing patient; (viii) evaluation of internal and external radiation exposure; and (ix) obtaining further medical advice. A regular check on the necessary items of equipment should be made.

THE PATIENT

ADMISSION AND RECEPTION

See also Abstract No. 462

401. TESTOLIN, K. and BYERS, M. **System cuts red tape for patients from admission to discharge.** *Hospitals*, Chicago, 1978, Sept. 1, vol. 52, no. 17, pp. 107-108, 110.

The personalized admitting system developed at Memorial Hospital Medical Center of Long Beach, Calif., focuses on providing the patient with one person to turn to—a representative who has complete responsibility for the patient's entire non-medical experience in the hospital. This person is the business representative, an employee who is specially trained in admitting, business office, and nursing service procedures. A personalized admitting office is located on each of the nursing units, and each business representative is responsible for an average of 83 patients. The business representative's tasks include: expediting admissions, discharges and transfers; making bed assignments; arranging patient transport; supervising room cleaning in their units; verifying patients' insurance coverage; providing financial counselling; and collecting payment on bills. The system has increased patient and staff satisfaction by minimizing the problems that can arise in a patient's non-medical experience with the hospital. Moreover, reassignment of hospital staff allowed the change to be accomplished and the system to be implemented without increasing operating costs.

WELFARE OF THE PATIENT

See also Abstract Nos. 348, 398, 432, 433, 441, 457

402. ROCCO, A. Il tema del rapporto tra paziente ed ospedale. **[Thesis on the relationships between patients and the hospital.]** *Ospedali d'Italia*, Roma, 1978, Sept., vol. 15, no. 9, pp. 46-55.

The problem of the relationship between the patient and the hospital environment is

discussed and practical measures which would make the patient's stay less traumatic psychologically are reviewed. These include: separation of the seriously ill patients from those who require less care; the construction, where possible, of minimal care units and discharge units; the creation of a cheerful and welcoming reception area; hospital hostesses (who may be volunteers); longer visiting hours; cafeterias for mobile patients; and the provision of secretarial help in the ward so that the staff can provide patient-centred nursing care.

403. PASCOE, D. W., WILSON, A. and WORSFOLD, J. B. **Patients' attitudes to health care: a literature review.** *World Hospitals*, London, 1978, Aug., vol. 14, no. 3, pp. 165-170.

Recent work in the area of patient perceptions of health care has been brought together in this review, largely of United States literature, which describes the results of attitude surveys. It covers: uses of surveys and methods of collecting data; results of surveys; food and accommodation; admitting; staff and medical care; and communication and information. Patient attitude surveys are used in a variety of ways; some are ongoing monitors, while others are once only assessments. Surveys need not be limited to acute in-patient settings. Although methodological problems are recognized, investigators conclude that assessment of patient opinion is of value, especially when used in conjunction with other methods of evaluation. Tabulation of data derived from a large sample and use of a variety of techniques in data collection will result in increased reliability and validity. The literature reflects a fairly high degree of overall satisfaction with medical care, although some areas, such as communication and conveyance of information, are less favourably viewed by patients.

HOSPITAL SOCIAL WORK

See also Abstract No. 398

404. OKTAY, J. S. and SHEPPARD, F. **Home health care for the elderly.** *Health & Social Work*, New York, 1978, Aug., vol. 3, no. 3, pp. 35-47.

The growth of home care is outlined and the rationale for home care services for the elderly is presented. Social workers have several roles to play in providing this care: as advocates regarding the quantity and quality of services; working with other members of the health team to assess the social and emotional factors related to the patient's health problems and to develop a care plan; helping the patient and his family to understand, accept and follow medical recommendations; assisting the patient and his family with personal, emotional and environmental difficulties; using resources to assist the patient to resume life in the community and to learn to live in the community and within his maximum capacity; and participating in alternative and appropriate discharge planning. Illustrative case studies are included.

405. WOODYATT, G. W. **Hospital chaplains.** *Hospital and Health Service Review*, London, 1978, Oct., vol. 74, no. 10, pp. 348-350.

The author describes how chaplains are the 'forgotten' element of the hospital staff

with regard to pay and conditions of work. The hospital administration has little control over the chaplain's appointment, his hours of work and his age of retirement. Patients do not always come under the spiritual care of the chaplain as they are often visited by their own priest or minister. In many ways, therefore, the chaplain is quite independent of the hospital staff structure, a situation necessitated by the special relationship existing between the chaplain and the individual patient.

TRANSPORT OF PATIENTS

406. LILLIEROTH, A. Samordnade u'omlänstransporter spar pengar åt landstingen. **[A co-ordinated extra-regional patient transport system saves counties' money.]** *Landstingens Tidskrift*, Stockholm, 1978, Sept., vol. 65, no. 15, pp. 19-21.

Over 2,000 journeys by ambulance have to be paid for each year, in which the patient is transported to a hospital in a county other than that in which he is insured for sickness benefit. The peak occurs in the summer holiday months, when ambulances are known to return empty for enormous distances. In January 1978, the county ambulance services and the Swedish telephone service set up a central co-ordination service in Fallköping in order to utilise available ambulance capacity. Within six months the service had reduced transport costs by a third from s.kr. 2 million (£240,000) to s.kr. 1.3 million (£155,000), the saving in July alone amounting to s.kr. 178,000 (£21,000). Another highly significant economy is the hire of an ambulance plane—a long-range, pressurised, turbo-propellor Piper Cheyenne—from a specialist firm. One single flight from Jönköping to Boden cost s.kr. 10,155 (£1,220) by plane, compared with s.kr. 12,220 (£1,320) by road; and when the plane can be used for part or whole return journeys as well, the savings are even greater. The article is illustrated with three exterior photographs and one interior photograph of the ambulance plane.

TERMINAL CARE

407. MARKEL, W. M. and SINON, V. B. **The hospice concept.** *Ca-A Cancer Journal for Clinicians*, New York, 1978, July/Aug., vol. 28, no. 4, pp. 225-237.

The hospice concept of care for the terminally ill has recently been gaining acceptance in the United States, with the St. Christopher's Hospice, London, as the model. A hospice aims to give medical, psychological and sociological care to the patient in order to maintain the quality of life and an optimum level of functioning. The participation of the patient's family in care is vital. A typical hospice team, directed by a physician, includes nurses, social workers, occupational, physical and speech therapists, and pastoral counsellors. Basic nursing care and an ability to ascertain patient and family needs are central to any hospice programme. Federal governments in the United States are now studying hospice care with regard to licensing and reimbursement plans. A selected list of United States hospices is supplied and the work of the Hospice Inc., New Haven, Connecticut and the Calvary Hospital, New York City, is described.

HOSPITAL CARE

See also Abstract Nos. 324, 338, 340, 348, 350, 356, 403, 413, 426, 428, 434-435, 448-449, 463-464, 467

408. FULCHIERO, A. and others. **Can the PSRO's be cost effective? A study of the effect of the Commonwealth Health Agencies Monitoring Program on the length of stay of Medicaid patients in Massachusetts.** *New England Journal of Medicine*, 1978, Sept. 14, vol. 299, no. 11, pp. 574-580.

The Commonwealth Hospital (later Health Agencies) Admissions Monitoring Program (CHAMP) is operated by the Commonwealth Institute of Medicine, which was established by the Massachusetts Medical Society to evaluate the quality and cost-effectiveness of various medical care delivery systems. To analyze the effect of CHAMP on the length of stay of a sample of Medicaid patients, their experience was compared with that of non-Medicaid patients. During the two and a half year period studied, the average length of stay of Medicaid patients decreased by 11.9 per cent relative to the norm, whereas that of non-Medicaid patients decreased by only 6.6 per cent. It is inferred that CHAMP may be credited with the 5.3 per cent differential decrease. The consistency and reliability of the data suggest that similar results may be extrapolated to the hospitals not sampled. It is concluded that professional standards review organizations, of which CHAMP is a precursor, can be cost effective, given an expanded review mandate and the application of suitable evaluative processes. [A comment on this paper by S. Sieverts appears on pages 601-602 of the same issue of the periodical. It questions whether the conclusions drawn are valid].

409. GRIFFITH, J. R. **Measuring hospital performance.** Chicago, Ill., Blue Cross Association, 1978, xiii, 86pp. $10.00

This study was commissioned by the Blue Cross Association to identify the quantity, cost and quality indexes that can be used to measure hospital performance, and could reasonably be accepted as focal considerations in contract negotiations. It produced 18 summary measures to provide decision-makers with comparative data at community, state, regional and national levels. Quantity measures are: discharge per person per year; patient days per person per year; and adjusted length of stay. Cost measures are: in-patient cost per person per year; and out-patient cost per person per year. Quantity measures presume an existing system of structural quality assurances through relevant approval programmes, which is supplementary to process measures used by physicians, administrators and others. They concentrate upon outcomes of hospital and medical care, including both clinical outcomes and patient perceptions, and are intended as adjuncts to other measures. Finally proposals for field trials are outlined to demonstrate the validity, feasibility and value of the measures. Details are also given on measuring hospital service communities and the four appendices cover: christening hospitals; translating population estimates to Zip Code areas; technical considerations and cost estimates for patient origin, service population and use rate analysis; and sentinel conditions proposed by Rustein et al.

410. WOOLDRIDGE, P. J., LEONARD, R. C. and SKIPPER, J. K. **Methods of clinical experimentation to improve patient care.** St. Louis, C. V. Mosby, 1978, xiii, 244pp. £6.80

This book was written to help promote the use of clinical experiments for testing

patient care procedures and developing general principles of more effective practice. It completes the link between clinical nursing theory development and behavioural science by presenting a paradigm for Clinical Experimental Method (CLEM). The book is in three sections: basic concepts and principles; design and data analysis; and philosophy, methodology and application. The strategies and techniques for using CLEM in patient care are outlined. There is also a glossary and a select list of references (pp. 223-233).

DISCHARGE OF PATIENTS

See Abstract No. 401

HOME CARE, AFTER-CARE

See Abstract No. 404

SPECIAL DEPARTMENTS

WARDS

411. GANDY, R. J. **An evaluation of the effect of a Programmed Investigation Unit.** *Health Trends*, London, 1978, Aug., vol. 10, no. 3, pp. 64-65.

The programmed investigation unit at Manchester Royal Infirmary has been in existence since 1969 and was designed primarily to assist the work of medical consultants. This study examines the effect of the unit on all medical beds in the hospital. It shows that beds outside the unit have accommodated an increase in the number of emergencies and other patients requiring immediate treatment.

OPERATING SUITES

See also Abstract Nos. 323, 390, 393

412. ELLES and MELLIERE, D. À propos de 10 années à l'hôpital Henri-Mondor. La conception des futurs blocs opératoires: salles polyvalentes? bloc commun? **[The design of operating room suites in the future: polyvalent rooms or combined suite? Ten years' experience at Henri-Mondor hospital.]** *Hôpital à Paris*, Paris, 1978, July/Aug., no. 46, pp. 365-368.

On the basis of their experience in unit operating blocks and then in a large multi-purpose block in the Henri-Mondor Hospital in Paris, the authors believe that the use of general purpose theatres reduces the quality of care, increases costs, and has a detrimental effect on working conditions for both medical and paramedical staff. They suggest that a block with a maximum of six to eight theatres for surgical disciplines which have common technical constraints is acceptable, but that, if more theatres are required, then several blocks which group together disciplines with common constraints are desirable.

ANAESTHESIA

See also Abstract Nos. 322, 390, 391

413. HARRISON, G. G. **Death attributable to anaesthesia: a 10-year survey (1967-1976).** *British Journal of Anaesthesia*, London, 1978, Oct., vol. 50, no. 10, pp. 1041-1046.

The mortality associated with 240,483 anaesthetics administered over 10 years at Groote Schuur Hospital, Cape Town, is reported. The frequency of death to which anaesthesia contributed was 0.22 per 1,000 anaesthetics (compared with 0.33 per 1,000 in the previous 10 years). These deaths were responsible for 2.2 per cent of the total mortality from surgery. Two-thirds of the 'anaesthetic' deaths were attributable to: (in order of frequency): (a) hypovolaemia; (b) respiratory inadequacy following myoneural blockade; (c) complications of trachael intubation; and (d) inadequate post-operative care and supervision.

414. MORTENSEN, D. Lederens ansvar og opgaver i forbindelse med anästesigassers formodede skadelige virkning på forløbet af graviditet hos anästesisygeplejersker: beskyttelse af anästesipersonale må pány debatteres. **[Administrator's responsibilities and duties in connection with likely harmful effects of anaesthetic gases on nurse-anaesthetist's pregnancies: there is an urgent need for renewed discussions on protection for anaesthetist staff.]** *Sygeplejersken*, København, 1978, Oct. 4, no. 39, pp. 4-9.

Despite convincing evidence of the harmful effects of anaesthetic gases on operating theatre staff, and despite the lack of evidence of the effectiveness of extraction fan systems, many hospitals have chosen to ignore this problem. The connection between anaesthetics and staff abortions was first demonstrated in Russia in 1967 and confirmed in Denmark in 1970. In hospitals where nurse-anaesthetists have pressed for the installation of efficient extractor systems, the reaction of senior medical staff is usually confined to assurances that the system works well enough as it is. A review of the literature from five countries proves that of some 50,000 operating theatre staff, compared with nearly 25,000 controls, female personnel were exposed to an increased risk of spontaneous abortions, malformed babies, cancer and diseases of the liver and kidneys. Pregnant theatre staff must be protected against the effects of anaesthetic gases, and in the current economic and administrative climate this can only be done by removing them from any room in which there are anaesthetic gases in the atmosphere. Pregnant nurse-anaesthetists must not be allowed to administer anaesthetics during the first four months of pregnancy. Full information regarding the risks involved must be actively provided for all theatre staff. More posts will have to be established in surgical departments, and displaced nurses must be gainfully employed elsewhere in the system during the months they are not in theatre. The whole field requires an increased research effort.

PHARMACY

415. IDSVOOG, P. B. **Basic skills for hospital pharmacy technicians: development of a programmed training manual.** *American Journal of Hospital Pharmacy*, Washington, D.C., 1978, Aug., vol. 35, no. 8, pp. 923-929.

The development of a programmed training manual to teach basic skills to hospital

pharmacy technicians is described. Steps in the development of the manual included: reviewing pertinent literature; writing a job description for a pharmacy technician post; performing a task analysis; writing learning objectives; and arranging course content into a programmed format. The five units of the manual cover: dosage forms and routes of administration; drug nomenclature; abbreviations; calculations; and medication orders. The programmed format should help to provide quality and economic and efficient training for technicians.

416. GIBB, S. M., SLAVEN, W. and SUNDERLAND, V. B. **Hospital pharmacy supporting staff in Western Australia.** *Australian Journal of Hospital Pharmacy*, Heidelberg, Vic., 1978, vol. 8, no. 2, pp. 63-65.

For many years there has been a wide range of staff employed as supporting staff for pharmacists in hospital pharmacy departments in Western Australia. The range and nomenclature of this group has been as diverse as has their training and experience. Those members of staff in posts held at higher levels normally possessed a qualification of Pharmacy Technician obtained abroad, or had progressed in, but failed to complete, the pharmacy course in Western Australia. Both these groups of applicants have now virtually ceased to exist in this State. A proposed education and training scheme for pharmacy support staff is outlined together with a redefined career structure.

417. LEBAS, M. Organisation d'une pharmacie hospitalière. [**Organization of a hospital pharmacy.** *Gestions Hospitalières*, Mantes, 1978, Oct., no. 179, pp. 751-757.

The organization, management, allocation of duties, staffing, equipment, and information flows in the pharmacy in the General Hospital in Bourges are described. The staff consists of three pharmacists, six dispensing assistants and seven assistants who carry out all the manual non-technical work, one laboratory technician, an accounts clerk, and a secretary. The pharmacy is relatively independent and therefore responsible economically as well as technically for its operations.

418. WEISSMAN, A. M. and BURLESON, K. W. **Advances in computer-based pharmacy systems.** *Medical Instrumentation*, Arlington, Va., 1978, July/Aug., vol. 12, no. 4, pp. 237-240.

This paper summarizes recent advances in computer-based pharmacy information systems for both in-patients and out-patients. The clinical pharmacy applications of: pharmacokinetic modelling; drug interaction and adverse drug therapy monitoring; intravenous additive and hyperalimentation schemes; drug use reviews; drug information services; and drug distribution systems, are outlined. Administrative and management control systems are briefly described, together with automated label systems and methods of identifying non-compliance with treatment. The advantages of a computerized integrated hospital information system are discussed.

419. SHEARER, S. W., GAGNON, J. P. and ECKEL, F. M. **Community, hospital and clinical pharmacists and drug information centers as physician drug information sources.** *American Journal of Hospital Pharmacy*, Washington, D.C., 1978, Aug., vol. 35, no. 8, pp. 909-914.

The use of drug information centres and clinical, hospital and community phar-

macists by physicians in North Carolina was examined. Questionnaires were sent to 674 non-federal physicians, half of whom were on the staff of university hospitals; 203 (32.5 per cent) replied. Physicians sought specific drug information approximately one to four times a month. University hospital affiliated physicians rated clinical and hospital pharmacists significantly higher than community physicians for six subject areas, and they also ranked clinical pharmacists over hospital pharmacists on four subject areas and considered them more reliable than other pharmacy drug information services. Physicians associated with community hospitals ranked hospital pharmacists over community pharmacists as sources of information for four areas and rated them more reliable than other drug information sources; this group preferred to use community pharmacists for information on product availability. It appears that clinical pharmacists are used by university physicians as drug information sources. Use in community hospitals of the hospital pharmacist as a drug information source is better than the literature might suggest.

420. SPINO, M., SELLERS, E. M. and KAPLAN, H. L. **Effect of adverse drug reactions on the length of hospitalization.** *American Journal of Hospital Pharmacy*, Washington, D.C., 1978, Sept., vol. 35, no. 9, pp. 1060-1064.

The influence of adverse drug reactions on length of stay was assessed in 204 patients who were receiving furosemide. Nurses monitored the patients prospectively, recording all suspected adverse reactions (both clinical and biochemical) to all drugs administered. A clinical pharmacologist or clinical pharmacist, or both, evaluated each suspected reaction. The mean duration of stay was 135 days in patients with no reactions and 272 reactions in patients with one or more reactions. This result did not distinguish whether reactions prolonged hospital stay or whether patients had more reactions because they were in hospital longer. To help identify the dependent variable, the data were analyzed by keeping the drug-exposure period constant. The incidence of reactions occurring in the first seven days was compared with that for the duration of stay beyond this exposure period. The analysis was repeated for subsequent seven-day periods of stay. No correlation was found between length of stay and reactions during the first two weeks. However, for the third, fourth and fifth weeks of stay, there was a significant correlation between the occurrence of reactions and the duration of stay beyond the seven-day observation period. Even in the third to fifth weeks, where the patients did have a prolonged stay related to reactions, the weak correlation suggests that other factors (e.g. severity of illness) are more important determinants of stay than adverse drug reactions.

421. JAROSINSKI, P. F. **The importance of pharmacist surveillance in a unit dose drug distribution system.** *Hospital Pharmacy*, Philadelphia, 1978, Sept., vol. 13, no. 9, pp. 491, 492, 496, 498, 500.

A study was conducted at the 110-bed Public Health Service Hospital, Boston, Mass., to determine if the pharmacist could provide important services to patient care while simultaneously performing the repetitious acts involved in unit dose drug distribution. During two five-week periods, the pharmacist actively questioned: (i) requests by nurses for additional doses of medication to determine why these additional doses were needed; and (ii) all doses returned in the dose medication trolleys which, according to doctor's orders, should have been administered to the patient. Results of these studies included the detection of some potentially dangerous deviations from accepted medica-

tion administration times (e.g. twice a day order given only four hours apart) as well as other problems, such as missed orders, medication 'borrowing' which sometimes magnified errors, and underdosing. It is concluded that the pharmacist can provide essential services while simultaneously performing the repetitious tasks of filling, checking, and exchanging unit dose medication cassettes.

LABORATORIES

422. LINCOLN, T. L. **Computers in the clinical laboratory: what we have learned.** *Medical Instrumentation*, Arlington, Va., 1978, July/Aug., vol. 12, no. 4, pp. 233-236.

The introduction of computer technology to a clinical laboratory requires a deeper engineering analysis of the laboratory environment and its internal operation than is usually initially appreciated. The commonly underappreciated conceptual problems in the laboratory and in computers are outlined. The role of the computer in the laboratory is that of a work allocation control system, which monitors and directs the piecework activity. The whole operation is compared with work in light industry. Effectiveness of the system depends upon hardware reliability and internal laboratory control of the computer system.

DIAGNOSTIC X-RAY DEPARTMENT

423. SHANNON, R. H. **Introduction to computer systems in diagnostic radiology.** *Medical Instrumentation*, Arlington, Va., July/Aug., vol. 12, no. 4, pp. 241-244.

Radiology is a medical specialty undergoing rapid change, through the use of new energy forms, advances in technology and the use of computers. Diagnostic radiology involves three processes: consultation; departmental operations; and advanced technology. Computers have been applied extensively to these processes and examples are given of these applications. The key to fully integrated computerized radiology systems may be the integrity of patient data; progress is being made but much remains to be done.

REHABILITATION

See Abstract Nos. 463, 465

DEPARTMENTS FOR SPECIAL THERAPY

See also Abstract No. 454

424. ROSENKVIST, I. Sygeplejen på en specialiseret brandsårsafdeling: allroundviden om brandsår kräver mindst 3 år i afdelingen. **[Nursing in a special burns unit: at least three years' work in the unit is needed to gain all round experience.]** *Sygeplejersken*, København, 1978, Aug. 23, no. 33, pp. 4-7.

The special burns unit established at Copenhagen City Hospital in 1963 moved in 1976 to the new hospital in Hvidovre. There are 14 beds in the one- or two- and four-bed rooms of the intermediary section, and seven intensive care beds (five

single rooms and one double). Admissions average 220 a year; the majority of patients admitted are suffering from 10 to 15 per cent burns, although patients are also seen with burns covering up to 80 per cent of the body. Immediately the patient is admitted, the unit staff carry out whole-body sprinkling on a special stretcher which ensures 100 per cent wetting of the body. Cultures are taken from the patient's skin, which is then washed with soap and sterile water. Intravenous pethidine is given if necessary, and a drip (Ringer's lactate) is set up where required. Fluid requirements are calculated for the next 48 hours, and the patient is placed naked on a sterile bed, in which he is allowed to lie untouched for about a fortnight. Physiotherapy commences on the second day of treatment. The air on the ward is maintained at 25°C to 28°C, relative humidity 30, to allow the burns to dry out. A high degree of sterility is maintained by means of airlocks, double corridors, and frequent changes of uniform. The burn is assessed after two weeks to see if transplantation is required, a month after which the patient is discharged. Only fully qualified nurses and final-year students work in the unit, with 1.2 nurses per patient in intermediary care and 0.6 nurses per patient in the intensive section. Television supervision is used throughout the unit.

INTENSIVE CARE UNITS

See also Abstract No. 389

425. AMERICAN COLLEGE OF SURGEONS. COMMITTEE ON PRE AND POST OPERATIVE CARE. **Manual of surgical intensive care.** Editorial sub-committee: J. M. Kinney, H. H. Bendixen and S. R. Powers. Philadelphia & London, W. B. Saunders, 1977, xi, 335pp.

This volume is divided into three general sections: development of surgical intensive care; general aspects of surgical intensive care; and management of specific conditions. The chapters vary in length and several have been given extra space because they represent subjects of central importance. Chapters cover such aspects as: the history of intensive care; the organization, design, administration, staffing patterns and equipment in an intensive care unit; intensive care monitoring; data handling systems; determinants of surgical intensive care; fluid and electrolyte management; use of blood; laboratory services; infection hazard; psychiatric considerations and ethical and legal considerations; the control of infection; ventilatory complications; circulatory failure; cardiac problems; renal failure; burns patients; and therapeutic conflicts. References are included after each chapter.

426. HAZZARD, M. E. **Critical care nursing.** London, Henry Kimpton, 1978, 202pp. £6.00

This book has been prepared for those who wish to study or review critical care nursing. Part one is concerned with the philosophy of care and basic concepts, such as the nursing process and human needs. Part two covers those conditions common to a number of critical care situations: stress and crisis; cardiopulmonary resuscitation; electrical hazards; intervention in shock; and electrocardiographic changes. Part three has chapters on the care of some of the more common conditions encountered in critical care. Each chapter contains review questions on the subject matter discussed and a list of suggested readings.

SPECIAL HOSPITALS AND UNITS

OUT-PATIENT

427. BERKI, S. E. and KOBASHIGAWA, B. **Education and income effects in the use of ambulatory services in the United States: an analysis of the 1970 National Health Interview Survey data.** *International Journal of Health Services*, Farmingdale, N.Y., 1978, vol. 8, no. 2, pp. 351-365.

The use of education and income as determinants for the use of out-patient services in the United States are investigated by the application of path analysis to a subsample of the 1970 National Health Interview Survey. Previous findings that income has no direct influence on use, whereas education does, are reaffirmed. However, it is shown that income does have a strong indirect effect on use through its impact on need arising from chronic conditions, measured as limitation of activity. Individuals in the highest income bracket have a mean annual visit rate of 4.13 while the rate for those in the lowest income bracket is 5.43. The differential is attributable to the lower prevalence of chronic conditions in the highest income bracket. The total effect of education is only 60 per cent of its direct effect since higher educational attainment is associated with lower levels of chronicity. Analysis of the effects reveals that income has a greater effect on use than education.

428. PAIS, M. Een vragenlijst voor de (poli)kliniek inwendige geneeskunde. **[A questionnaire for the (out-patient) clinic of internal medicine.]** *Tijdschrift voor Social Geneeskunde*, Amstelveen, 1978, Nov. 8, vol. 56, no. 22, pp. 730-734.

As an experiment to supplement the patient's verbal history taken by the physician, questionnaires were issued to 99 patients containing questions on physical and psychological complaints, social conditions, use of medicines and stimulants, previous illnesses, admissions into hospital, and keeping of pets. There were 476 questions for women and 458 for men with a minimum of 265 and 258 respectively for single men and women without children. The only differences in questions concerned the urogenital tract and 94 questions were asked twice to cover cases of more than one type of pain in a same area. The questionnaires were examined for reliability, number of unanswered questions and influence of age, sex and education on their completion. Views of patients and specialists on their introduction were obtained. Diagnoses concluded through verbal questioning and through the aid of the questionnaire were compared. Details of methods and findings are given, illustrated by tables on unanswered questions (table 1), and comparisons and agreements of various diagnoses (tables 2 and 3). It was also found that 23 per cent of the patients and two out of the four specialists were against the introduction of the questionnaire.

429. CUGLIANI, A. **Patterns of hospital based ambulatory care.** *Social Science and Medicine*, Oxford, 1978, June, vol. 12, no. 1C/2C, pp. 55-58.

A survey of ambulatory services was carried out in 135 New York hospitals in 1974 and included visits by 16,822 patients to 1,120 clinics and 133 emergency departments. Two out of every three visits were made by members of ethnic minority groups or by females. The predominance of women and young children accounted for the high use

of paediatric, obstetric and allergy clinics, while general medical and eye clinics were used more by the elderly. Hospital clinics served a poorer population overall. General examinations, respiratory, obstetric and sensory conditions as well as circulatory problems accounted for over half the visits, patients with lower incomes having a high percentage of chronic illness. Variation in clinic use was related more to ethnic origin than to level of income. Ethnic minorities and low income groups made up a higher proportion of non-emergency cases using ambulatory services, because of a lack of access to a family physician.

CASUALTY AND ACCIDENT

See also Abstract Nos. 377, 400, 429, 466

430. GIBSON, G. and KASZUBA, A. L. **Prioritizing clinical and non-clinical issues for emergency department quality assessment studies.** *Journal of The American Society of Emergency Physicians*, Lansing, 1978, Aug., vol. 7, no. 8, pp. 293-296.

The Johns Hopkins Hospital emergency department aimed to develop a method of listing, in order of priority, clinical and administrative topics to be subjected to quality assessment. Staff were asked to rate the importance of 25 diagnostic conditions and 11 management issues in relation to morbidity, effectiveness of care given, and the likelihood of an assessment study being able to improve care. There was an inverse relationship between frequency of diagnoses and morbidity and, in general, respondents felt that evaluation studies would not improve quality of care. On the management side, respondents thought that patient compliance and out-patient appointment scheduling could be improved by assessment studies. This method of establishing priorities might well be used by the American College of Emergency Physicians for identifying high priority areas in emergency medicine and for initiating assessment studies.

431. CETTOUR-BARON, G. La guerre de l'Aide Médicale Urgente aura-t-elle lieu? **[Will the battle of Emergency Medical Aid take place?]** *Techniques Hospitalières*, Le Kremlin-Bicêtre, 1978, Oct., vol. 33, no. 397, pp. 63-66.

The Emergency Medical Aid Service (EMAS) in France is operated from and by the public hospitals. The private sector is now anxious to share in the operation of the Service. The author disputes this claim. The EMAS is staffed by hospital doctors, the hospitals have invested large sums of money in equipping their emergency departments, and any change of this nature would hasten the dismantling of a public service which has proved its value and effectiveness.

432. YOUNG, M., PONDER, L. D. and HURLEY, R. S. **Educating the consumer about emergency medical services.** *Health & Social Work*, New York, 1978, Aug., vol. 3, no. 3, pp. 173-181.

A seven-county rural region in Texas received a two-year grant to improve the quality of local emergency medical services (EMS). One component was a public education and information programme considered necessary to ensure long-range community support for improving and using the EMS system. A modified sociological model was implemented to develop community awareness by using a series of seminars in which community leaders and the lay public were brought together to learn and disseminate

information about the components that make up a quality EMS system. A follow-up evaluation indicated that the objectives of the public education programme had been accomplished and that the model for consumer involvement was an effective and efficient means of stimulating community action. A similar, continuing educational programme is a logical and necessary second phase.

433. CAMERON, C. T. M. **Nonresuscitative aspects of the management of severe injuries.** *Journal of The American College of Emergency Physicians*, Lansing, 1978, Aug., vol. 7, no. 8, pp. 313-314.

Although resuscitation of seriously injured patients in the emergency department is the primary consideration, there are other aspects of overall care. The situation must be explained in layman's language to relatives and friends, who in turn may be able to give vital information about the patient's medical background and the circumstances of his injury. A study has shown that most families tend to demonstrate six phases of reaction to serious injury or death: anxiety, denial, remorse, grief, anger and acceptance. Thought should also be given to the feelings of the patient: he may appear to be unconscious but may be able to hear voices. When he regains consciousness it should be explained to him what has happened and why he is connected to various tubes and possibly unable to speak.

434. FRAZIER, W. H. and CANNON, J. F. **Emergency medical technician performance evaluation.** (DHEW Publication No. (PHS)78-3211) Hyattsville, Md., National Center for Health Services Research, 1978, iv, 60pp.

An evaluation was conducted of the diagnostic accuracy and treatment appropriateness of emergency medical technicians (EMTs) in caring for 4,455 patients during a four and a half month period in South Central Connecticut. Data on EMT diagnosis were recorded on a single page form by a member of the EMT team in the Emergency Service as soon as responsibility for the patient had been transferred. Observers supervised and validated the EMT data. The back of the form was used for the Emergency Service physician's diagnosis, allowing comparison to be made. Rating of appropriate treatment was based upon a list of mandated treatments, determined by a physician panel, for 58 diagnostic conditions, which affected 50 per cent of the patients. Diagnostic accuracy tended to be mediocre, but treatment appropriateness varied by diagnosis and severity. Serious medical and trauma conditions received appropriate treatment far more frequently than non-serious conditions. Essential changes in educational approach and emphasis are discussed.

435. SEMMLOW, J. L. and CONE, R. **Access performance in an emergency medical service system.** *Journal of Clinical Engineering*, Long Beach, Calif., 1978, July/Sept., vol. 3, no. 3, pp. 271-276.

Data obtained from two different sources (Illinois Trauma Registry and Illinois Department of Transportation) are combined in an analysis of the relative performance of emergency medical service 'access components'. Access components are defined to include: discovery and notification; dispatch of help; and transport. The major findings are: (i) while the majority of patients reach care with reasonable delay, a few patients incur inordinately long delays despite close proximity to a care facility, probably for access rather than transport reasons; and (ii) only about 14 per cent of

emergency access events appear to be time-limited by the transport component, thus only a small percentage of events will be defined by transport-related variables.

OCCUPATIONAL HEALTH

See Abstract No. 414

DAY HOSPITALS

See also Abstract No. 450

436. GARRAWAY, W. M. and others. **Consumer acceptability of day care after operations for hernia or varicose veins.** *Journal of Epidemiology and Community Health*, London, 1978, Sept., vol. 32, no. 3, pp. 219-221.

The options of patients and caring persons (usually relatives) were sought in this trial of different methods of providing care for 360 patients after operations for hernia or varicose veins. Analysis of patients' opinions suggested that day care was the most acceptable of the three types of care examined. The reactions of caring persons did not reveal any major criticisms or disadvantages.

437. PRESCOTT, R. J. and others. **Economic aspects of day care after operations for hernia or varicose veins.** *Journal of Epidemiology and Community Health*, London, 1978, Sept., vol. 32, no. 3, pp. 222-225.

In a trial of 360 patients with hernia or varicose veins, day care surgery provided an economic alternative to the provision of surgical aftercare either in the surgical wards of a district hospital or in a convalescent hospital. There was only slightly more work for general practitioners. Most of the additional work for the community services was carried out by the district nurses, with an average contact time in the postoperative period of 325 minutes for day care patients, compared with 186 minutes and 204 minutes respectively for patients admitted for 48 hours to the surgical and convalescent wards. Day care produced estimated savings of £30 compared with the costs of a 48-hour stay in the surgical wards, and savings of £22 compared with a 48-hour stay in the convalescent wards.

CHEST

See also Abstract No. 387

438. À l'Assistance Publique de Paris: programme à moyen terme de la pneumologie. **[Medium term scheme for pulmonary medicine in the Paris public hospital sector.]** *Hôpital à Paris*, Paris, 1978, July/Aug., no. 46, pp. 297-315.

The present facilities for the treatment of diseases of the lungs in *Assistance Publique* hospitals are divided into facilities for tuberculosis, tumours, acute affections, chronic affections, vascular diseases, and others. Figures relating to admissions of adults and children suffering from diseases of the lungs in the period 1970-1975 showed that only 30 per cent of these were admitted to specialised units, 20 per cent were admitted to

general medical wards, and the rest to paediatric, general surgical, cardiology, or other units. From comparisons of these data with information on the incidence of each type of affection, new forms of treatment, and demographic changes in the region, it is estimated that the *Assistance Publique* will require 750 to 800 specialist beds for diseases of the lungs in 1985 and approximately 90 to 100 beds for pleuro-bronchio-pulmonary surgery. Centres for prevention and rehabilitation should be attached to out-patient clinics. The information used for forecasting these future requirements is presented in 17 tables.

439. PARIENTE, R. L'aspect actuel d'un service de pneumologie. **[Features of a department of pulmonary medicine.]** *Hôpital à Paris*, Paris, 1978, July/Aug., no. 46, pp. 327-329.

A modern unit for the treatment of diseases of the lungs will consist of: (i) a conventional in-patient unit of between 40 and 70 beds, depending on the size of the user population, the average length of stay in hospital, and the existence of day hospital facilities; (ii) about 12 beds for cases of acute respiratory distress; (iii) an out-patient clinic and day hospital; (iv) facilities for endoscopy, spirography, angiography, blood gas analysis, and micro-catheter examinations; and (v) a research laboratory.

440. PARIENTE, R. and BALDEYROU, P. Méthodes d'étude des besoins hospitaliers en pneumologie. **[Study methods of hospital needs in pulmonary medicine.]** *Hôpital à Paris*, Paris, 1978, July/Aug., no. 46, pp. 317-325.

The methods employed to forecast the hospital facilities which will be required for diseases of the lungs (tuberculosis, other infections, cancer of the thorax, chronic respiratory insufficiency, vascular affections of the lungs, and other respiratory diseases) are summarised. Current morbidity and mortality rates for these diseases were used for forecasting the numbers of cases likely to occur in 1985. The hospital facilities required will to some extent depend on new trends in treatment (out-patient treatment, early discharge, and the use of day hospitals), early diagnosis, and new methods of prevention. In particular the incidence of occupational diseases of the lungs will be determined by achievements in the fields of prevention and early detection.

CHILDREN

See also Abstract No. 380

441. HARDGROVE, C. B. and KERMOIAN, R. **Parent-inclusive pediatric units: a survey of policies and practices.** *American Journal of Public Health*, Washington, D.C., 1978, Sept., vol. 68, no. 9, pp. 847-850.

Although the number of paediatric units providing rooming-in facilities for parents has increased rapidly in recent years, there have been few attempts to investigate the way in which these units function. Questionnaires were posted to directors of nursing services of a sample of 84 general hospitals which met stated criteria with regard to parents 'living-in'. The results showed that parents are provided with a place to sleep, but are infrequently offered the additional facilities, services and guidance necessary to

optimize their presence. Restrictions on parents remaining with their children are common during highly stressful procedures. The results indicate a gap between research on the importance of parental presence and current hospital practice and a strong need for education of staff on the special problems of the hospitalized child and his family.

442. LEWIS, M. **Child psychiatric consultation in pediatrics.** *Pediatrics*, Evanston, Ill., 1978, Sept., vol. 62, no. 3, pp. 359-364.

The results of a three-month study of the incidence of child psychiatric consultation reports in three different areas (emergency room, primary care centre and paediatric wards) which a paediatric service in a teaching hospital in the United States provides are presented. The results revealed that the greater number of requests were received in the primary care centre. The second largest number of consultation requests were for suspicion of child abuse. Future trends and roles for child psychiatry and paediatric collaboration are discussed. The importance of the development of complementary functions should be emphazised rather than the creation of new disciplines such as behavioural paediatrics or paediatric psychiatry.

443. GOSLIN, E. R. **Hospitalization as a life crisis for the preschool child: a critical review.** *Journal of Community Health*, New York, 1978, vol. 3, no. 4, pp. 321-346.

A review of the literature reveals that the psychological effect on children of a stay in hospital has remained substantially the same over the last decade. Maternal separation is the primary cause of stress, but emotional stress prior to admission and the child's level of understanding at the time are also significant factors. Children between the ages of six months and four years are most likely to be upset by admission to hospital, but they are also more amenable to change than other age groups. Attempts to prepare children for a stay in hospital have met with little success among the pre-school age group. However, while in hospital, children can often be helped by adequate provision for play and the greater involvement of the mother in the child's illness. Effective co-operation between the paediatric unit and the department of psychiatry is also needed. Research shows that teaching a child and his mother to cope while he is in hospital is more effective than elaborate schemes of preparation.

GERIATRICS AND LONG-STAY

See also Abstract No. 404

444. WILKIN, D., MASHIAH, T. and JOLLEY, D. J. **Changes in behavioural characteristics of elderly populations of local authority homes and long-stay hospital wards, 1976-7.** *British Medical Journal*, London, 1978, Nov. 4, vol. ii, pp. 1274-1276.

Behavioural characteristics of the elderly populations of seven local authority residential homes and three long-stay wards were assessed in 1976 and 1977 with the Crichton Royal behavioural rating scale. In 1977 the levels of behavioural problems had increased in the residential homes, but declined in the hospital wards. Differences between the homes had decreased as the overall level of problems increased. The findings suggested that the burden of caring for increasing numbers of severely disabled elderly people was affecting the balance of institutional care, and that a radical re-appraisal of present patterns of care may be necessary to meet their further needs.

445. DILLING, H. Epidemiologie psychischer Störungen und psychiatrische Versorgung, Teil 2: Diskussion der Ergebnisse. **[Epidemiology of mental disorders and Mental Health Services, part 2.]** *Fortschritte der Medizin*, München, 1978, Oct. 5, vol. 96, no. 37, pp. 1870-1874.

This is the second part of a paper on the incidence of psychiatric illness and on psychiatric services in a district of Bavaria with a population of 424,000 living in villages and small towns [for Part 1 see *Hospital Abstracts*, Vol. 8, No. 1256]. This second part discusses and summarizes the results of the survey. Among the points noted are the following: almost two per cent of the population over 15 have psychiatric treatment during the course of a year and this figure is in line with that from earlier surveys; incidence is higher in the elderly and particularly in those over 75; many patients do not get treatment because they live too far from a specialist; more patients come from areas of higher population though morbidity is not necessarily higher; for out-patient treatment there should be one psychiatrist per 50,000 population; increased out-patient facilities are the main priority (the present provision of three psychiatric beds per 1,000 population is considered to be too high).

446. HALL, M. R. P. and ANDREWS, J. **Medical staffing of hospital geriatric units.** *British Medical Journal*, London, 1978, Sept. 30, vol. ii, pp. 972-973, 976.

The number of staff needed in a district general hospital geriatric unit varies with the scope of the hospital and the community it serves. A formula for the number of medical staff sessions needed in such a unit has been worked out by the Wessex Regional Board Working Party and the British Medical Association's Working Party for the Care of the Elderly. It includes a basic allowance of 3½ sessions per week per 100 admissions a year, 22 sessions per day hospital places, 11 to 15 sessions psychogeriatric liaison, and 7 to 11 sessions for consultation with other specialties. The formula was measured against staffing levels in 22 geriatric units, but the level reached the target of about 10 full-time staff to a population of 28,000 elderly in only four cases. The correction of this deficiency poses recruitment and training problems. However, opportunities for education in geriatrics exist for many types of medical and non-medical staff and if more senior medical posts were rotational, more potential consultants in geriatrics would gain the required experience.

447. WOODS, D. **Baycrest Centre for Geriatric Care.** *Canadian Medical Association Journal*, Ottawa, 1978, Sept. 9, vol. 119, no. 5, pp. 511-516; Sept. 23, vol. 119, no. 6, pp. 625-626, 628, 633.

The five elements of the Baycrest Centre for Geriatric Care, Toronto, provide a model of integrated community care of the elderly. The Centre is not isolated from the world but is quite self-sufficient with regard to activities and services. The care given aims at and achieves a high level of functioning in the elderly. The 370 residents at the Jewish Home for the Aged have a wide range of facilities and activities available to them. The nursing care floors are for the physically disabled but mentally alert, and the special care floor houses those needing more attention. The 154-bed Baycrest Centre Hospital is like a small general hospital, but without surgery, and provides chronic and terminal care, and rehabilitation. Baycrest Terrace is an 11-storey building for 230 residents who need the minimum of nursing or medical help. There is a health unit and three social workers attached to the Terrace. Many residents have outside interests, but

most of their activities centre on the adjoining Wagman Centre, a multi-purpose facility providing a dining-room, shops and numerous other amenities. The Baycrest Centre also runs a day care service.

448. MORGAN, D. **A total care complex for the aged.** *Dimensions in Health Service*, Ottawa, 1978, Sept., vol. 55, no. 9, pp. 23, 26.

The Baycrest Centre for Geriatric Care in Toronto is made up of five different units providing a series of integrated services for the chronically ill and older patient. The Jewish Home for the Aged provides residential care, straightforward nursing care and special care for the mentally impaired. Baycrest Hospital provides long-term care, rehabilitation and terminal care and has co-operative arrangements with general hospitals in North Toronto. The Baycrest Terrace accommodates 220 elderly people in self-contained units and is attached to the very active Wagman Centre. The Baycrest Day Care Service exists for people about to enter the Home and for those who are able to remain in their own homes by attending the Centre about twice a week. Many services provided in the Centre are common to all five units, thereby ensuring an efficient delivery both within and between establishments.

449. KANE, R. L. and KANE, R. A. **Care of the aged: old problems in need of new solutions.** *Science*, Washington D.C., 1978, May 26, vol. 200, no. 4344, pp. 913-919.

Long-term care of the elderly in the United States is very dependent on nursing homes offering varying levels of nursing care. Nursing home residents tend to suffer from multiple chronic conditions with a preponderance of mental disability. Their problems are often social rather than medical. The United States can learn much from the European method of basing long-term care on a number of community resources as well as on institutions. In addition, sheltered housing provides a combination of community living and independence. The author suggests that: (i) American nursing homes should have more contact with the community; (ii) a specialty of geriatrics should be developed; (iii) investment in sheltered housing should be increased; and (iv) planning and control of long-term care should be localized.

CANCER

450. WILKES, E., CROWTHER, A. G. O. and GREAVES, C. W. K. H. **A different kind of day hospital—for patients with preterminal cancer and chronic disease.** *British Medical Journal*, London, 1978, Oct. 14, vol. ii, pp. 1053-1056.

A day hospital for patients with pre-terminal cancer and chronic disease has been set up in Sheffield as part of a terminal care unit. During the first 26 months 197 patients with cancer and 66 chronically sick patients attended. Patients with pre-terminal illness attend for as long as they need, 85 per cent visiting once a week. Breast cancer patients accounted for 38 per cent of attendances. The day unit is purpose-built and is serviced by nurses, social workers and trained volunteers. The support provided is of great importance to both patient and family, and over two-thirds of the patients benefitted from improved control of symptoms. Similar units could be developed within existing day hospitals without major expenditure.

NEUROLOGY AND NEUROSURGERY

451. SALCMAN, M. and SAMARAS, G. M. **Neurosurgery and clinical engineering.** *Journal of Clinical Engineering*, Long Beach, Calif., 1978, July/Sept., vol. 3, no. 3, pp. 251-256.

Modern technology has profoundly altered the clinical practice of neurosurgery. Patients are being implanted with active and passive devices or treated with advanced microsurgical instrumentation. After surgery, such patients are sent to modern intensive care units using the latest advances in patient monitoring and computer technology. It is contended that the responsibilities of the clinical engineer extend beyond simple installation and maintenance of equipment and systems. It is essential that he take part in the continuing education of non-technical staff who must make use of the equipment in ways that are meaningful in the care of the patient and to the progress of clinical science. This point is illustrated by the authors' experience in a neurosurgical intensive care unit. It is also the thesis of this paper that the design and maintenance of increasingly sophisticated biomedical systems will benefit from the use of an interdisciplinary approach at the very inception of a project. This approach is illustrated by the current development of a multi-beam microwave hyperthermia system for possible use in the treatment of brain tumours.

CARDIOLOGY

See also Abstract No. 455

452. AMERICAN SOCIETY FOR HOSPITAL ENGINEERING. **Arrhythmia monitoring systems.** Chicago, Ill., American Hospital Association, 1978, v, 25pp. $2.75

This publication provides technical information for hospital administrators on methods of arrhythmia monitoring, with emphasis on making cost-effective decisions regarding the purchase of computerized systems. It covers: studies of the clinical efficacy of conventional and computerized systems; safety/liability; manpower and training needs; technical requirements of system installation and utilization. It also reviews the costs of purchasing and installing the components of both a conventional and a computerized system and presents a set of criteria for purchasing a computerized system. An appendix summarizes the technical features of all commercially available computerized systems.

ORTHOPAEDICS

453. LOURIE, J. A. **Notes on an orthopaedic waiting-list.** *British Journal of Clinical Practice*, Hove, 1978, Aug., vol. 32, no. 8, pp. 224-225.

A questionnaire was sent to 213 patients who had been on the waiting list for common orthopaedic operations for an average of two years, asking them if they still wished to have the operation. Thirty per cent wished to be kept on the waiting list; 10 per cent asked to be removed; 40 per cent did not reply; and most of the remainder had moved away, died or received treatment elsewhere. This suggests that the actual number of patients on a waiting list for routine orthopaedic operations may give a misleadingly high indication of the number of patients who will eventually come to surgery, and provide an inaccurate picture of the real demands for treatment in the general population.

UROLOGY

See also Abstract Nos. 325, 388

454. DOESSEL, D. P. **An economic analysis of end-stage renal disease** (Research Report Series Monograph No. 2) Canberra, Hospital sand Health Services Commission, 1978, xiii, 85pp.

This book presents an economic analysis of four alternative methods of treating end-stage renal disease. Australian data compiled for the Australian Kidney Foundation are used, augmented where necessary by aggregated European data of those countries reporting to the European Dialysis and Transplant Association. The alternatives are: home dialysis; hospital dialysis; transplantation using cadaver donors; and transplantation using living donors. Three types of analysis are made: (i) a cost-effectiveness analysis to find out which alternative saves lives for the minimum cost; (ii) a cost-benefit analysis to consider which alternative maximizes net social benefit, namely labour income, or 'value of household production' for housewives; and (iii) a reworking of the two preceding analyses with the returns and outlays weighted for different marginal utilities of income. Although living and cadaver donor transplantation are the most economically viable methods of treatment, the law relating to organ donation is a major constraint, limiting the availability of kidneys for transplantation. Australian statutes on this matter are reviewed and various ways of overcoming the problem considered.

SURGERY

See also Abstract Nos. 383, 425, 436, 437

455. THICK, M. G. **An attempt to measure the costs and benefits of cardiac valve surgery at the London Hospital in adults of working age.** *Health Trends*, London, 1978, Aug., vol. 10, no. 3, pp. 58-60.

The cost to the London Hospital of inserting a prosthetic heart valve is approximately £2,000—considerably less than anticipated. The biggest single cost was the prosthesis. By studying data from a questionnaire returned by 122 patients the authors have attempted to show the benefit to the State of a cardiac valve operation enabling complete return to work.

MATERNITY

456. BASKETT, T. F. **Obstetric care in the central Canadian Arctic.** *British Medical Journal*, London, 1978, Oct. 7, vol. ii, pp. 1001-1004.

All pregnancies that occurred during the years 1971 to 1975 among 4,000 Canadian Eskimos living in an isolated district of the North-west Territories were reviewed. Obstetric care was provided in settlement nursing stations and at a base hospital manned by general practitioners, in Churchill, Manitoba. A few high risk cases were sent to a teaching hospital in Winnipeg. Of the 622 infants born, 218 were delivered in nursing stations by midwives, 338 in the base hospital and 54 in the Winnipeg hospital. Perinatal mortality was 25.7 per 1000 births. Thus, despite the lack of medical help in

many cases, results appeared to be satisfactory. This success was owed to experienced midwives, an evacuation policy for cases with any degree of risk, and a specialist visiting and consulting service.

457. HILEY, R. and others. **Communication in a neonatal unit.** *Nursing Times*, London, 1978, Oct. 26, vol. 74, no. 43, pp. 1771-1772.

This paper reports a project to assess four aspects of communication in the author's own neonatal unit and in other units in different parts of the country: (i) family communication charts (already in use); (ii) communication between parents and staff; (iii) communication between the staff of the unit and of the postnatal wards; and (iv) management of breast feeding in the unit. Among the conclusions were: (i) the family communication charts improved communications; (ii) a booklet should be prepared and given to parents of babies admitted to the unit; (iii) the sister in charge, or her deputy, should visit the postnatal ward daily to discuss the condition of babies belonging to mothers in that ward and to see all mothers unable to visit their babies; (iv) a midwife from each postnatal ward should visit the unit daily to see the mothers of babies in her care; (v) a breast feeding policy for both the postnatal wards and the neonatal unit should be implemented as soon as possible; and (vi) there should be a breast feeding room in the unit where an experienced midwife could supervise feeding.

GYNAECOLOGY

458. JACKSON, M. N. and others. **Elective hysterectomy: a cost-benefit analysis.** *Inquiry*, Chicago, 1978, Sept., vol. 15, no. 3, pp. 275-280.

Hysterectomy is one of the most frequently performed major surgical procedures in the United States and is cited as an example of a procedure which is often performed unnecessarily. A four-year study was undertaken in the Seattle Prepaid Health Care Project to analyse the direct costs and direct benefits of elective simple hysterectomy. Costs of alternative methods of contraception and their complications were not included in the analysis. The results are presented in four tables and discussed. They suggest that very little, if any, financial benefit would be expected to accrue from the purchase of an elective hysterectomy by or for an asymptomatic woman at 30 years of age. The limitations imposed by the data are emphasized.

PSYCHIATRY

See also Abstract Nos. 350, 394, 442

459. MEINHARDT, K. **Nonhospital alternatives for acute psychiatric care in California.** *Hospital & Community Psychiatry*, Washington, D.C., 1978, July, vol. 29, no. 7, pp. 437-442.

In California multiple social forces and financial constraints are leading to the rapid development of local alternatives not only to state hospitals but to general psychiatric units as well. Two dissimilar patterns of acute-care services are emerging: the use of skilled nursing facilities with additional staff to provide mental health services and the

development of a wide range of primarily non-medical facilities under the licensing category of 'residential care facility'. Both types of schemes are evaluated. The plan of Santa Clara County, Calif., to build a 54-bed residential building and a 15-bed psychiatric unit in a county hospital to replace two county-hospital psychiatric wards is outlined.

460. TOWELL, D. **Large institutions—problems and solutions.** *Hospital and Health Services Review*, London, 1978, Oct., vol. 74, no. 10, pp. 359-365.

The current declared intention in the care of the mentally ill is to replace large institutions by community-based care provided by a local framework of facilities. However, over 90 per cent of mental illness beds are still in large, often out-dated institutions. Attempts to change this situation are constrained by lack of finance and traditional attitudes. The author describes a number of action research projects in which he and staff of institutions have worked together to plan a better local service. One such project has resulted in local health authorities taking the lead in proposed changes and providing extra resources. In addition, management teams have been established within the institution itself. The author elaborates on three aspects of this new strategy: (i) the relationship between the institution and the district psychiatric service; (ii) the multi-disciplinary management of the hospital; and (iii) the importance of mobilising staff initiative at all levels if real improvements in services are to be achieved. A discussion follows.

461. DEPARTMENT OF HEALTH AND SOCIAL SECURITY and others. **Review of the Mental Health Act 1959.** (Cmnd. 7320) London, Her Majesty's Stationery Office, 1978, vi, 108pp. £2.00

This White Paper sets out the Government's proposals for changes in the Mental Health Act 1959. The general philosophy behind the proposals is based on the need to strengthen the rights and safeguard the liberties of the mentally disordered whilst retaining a proper regard for the rights and safety of the general public and staff. Chapters cover: the scope of the Act and the definition of mental disorder; compulsory admission to and detention in hospital; admission procedures; guardianship and compulsory powers in the community; offender patients; safeguards for patients; safeguards for staff; and resource implications. An appendix of statistical data is included.

462. SCHWEITZER, L. and KIERSZENBAUM, H. **Community characteristics that affect hospitalization and rehospitalization rates in a municipal psychiatric hospital.** *Community Mental Health Journal*, New York, 1978, vol. 14, no. 1, pp. 63-73.

Socio-economic measures can be used to explain many aspects of the age-specific rates of psychiatric admission for Brooklyn, N.Y. However, when the age-specific rates are compared for whites and blacks the relative importance of socio-economic measures becomes less and family structures emerge as significant predictors. The data suggest that ethnic-related factors can be used as intervening variables in hospital admissions. The percentage of patients readmitted can be predicted by the level of interpersonal contact, but the percentage admitted is also simply related to social and family structures.

463. BUTLER, R. J. and ROSENTHALL, G. **Behaviour and rehabilitation: behavioural treatment for long-stay patients.** Bristol, John Wright and Sons, 1978, viii, 197pp. £6.00

The aim of this book is to present to psychiatric nurses working with long-term patients in hospital, a sound basic understanding of the procedures involved in behaviour modification. The book is in four sections, comprising 17 chapters in all, which consider: the long-stay patient; the nurse as therapist; measuring behaviour; and treatment. The traditional methods of treating long-stay patients are examined and the common factors which run through all treatments used in a behavioural treatment approach. A bibliography of 19 items is included.

464. BOYD, C. and HENDERSON, W. E. **Improving continuity of care through a state hospital-CMHC liaison program.** *Hospital and Community Psychiatry*, Washington D.C., 1978, June, vol. 29, no. 6, pp. 384-386.

A study of 78 discharged patients from Dorothea Dix Hospital, Raleigh, N.C., identified several problems in the continuity of care system linking state hospitals and community mental health centres. A liaison team comprising of a social worker from the hospital and a psychiatric nurse from the W. H. Trentman Medical Centre, Raleigh, N.C., carried out the tasks of contacting county residents admitted to hospital, participating in treatment and discharge planning, and contacting patients who did not keep their appointments for after-care. The authors believe the positive results of the scheme were linked to: an objective definition of the problems; administrative co-operation; and good links between the liaison team, hospital management and the health centre.

465. ASHTON, J. R. **Rehabilitation in psychiatry.** *Community Health*, Bristol, 1978, May, vol. 9, no. 4, pp. 216-220.

The change in emphasis towards community care in psychiatry has resulted in efforts to rehabilitate large numbers of long-stay schizophrenic patients. However, patients may be discharged into the community with inadequate care and may impose severe burdens on relatives. The prevention of secondary handicaps in new patients by a combination of modern treatment methods, early discharge policies and community services has been more successful and the social progress of these patients is now usually very good. However, the provision and co-ordination of services in the community falls short of what is required to care adequately for these patients and there is a need for operational research into the different levels of provision. The literature on rehabilitation is examined and the author concludes that there should be a greater commitment to the rehabilitation of schizophrenics.

466. ROSENWEIG, N. and BAER, K. **Psychiatric emergency service expands to serve total hospital.** *Hospitals*, Chicago, 1978, Sept. 1, vol. 52, no. 17, pp. 89-90, 94, 98.

The development of the Sinai/Mount Carmel Psychiatric Emergency Response Program is described. Under the programme, the comprehensive department of psychiatry at Sinai Hospital, Detroit, provides crisis intervention and psychiatric services on a contractual basis to Mount Carmel Mercy Hospital. From its modest beginnings as a consultative service to the emergency department and the in-patient

units, the programme has grown to become an integral part of the clinical, liaison and educational programmes of both hospitals in the comparatively brief span of four years. It provides staff and back-up for psychiatric consultations, crisis intervention, concurrent psychiatric care of medical/surgical patients, follow-up for psychiatric admissions or referals, and staff education. Staff include senior psychiatrists and on-call residents, and the programme relies heavily on the use of psychiatric nurse clinical specialists and registered nurses with experience in psychiatric nursing.

467. NATIONAL DEVELOPMENT GROUP FOR THE MENTALLY HANDICAPPED. **Helping mentally handicapped people in hospital: a report to the Secretary of State for Social Services** (Chairman: Professor P. Mittler) London, Department of Health and Social Security, 1978, viii, 136pp.

This report on the implementation of better services for mentally handicapped people and their families presents a picture of the overall pattern of service provision in the National Health Service. There are 10 chapters which consider: (i) the current position; (ii) the aims of the mental handicapped hospital; (iii) handicapped children; (iv) creating a home; (v) creating a learning environment; (vi) residents with special needs; (vii) staffing; (viii) family and community links; (ix) organization and management; and (x) implementation of the report. The report makes many detailed and specific recommendations which can be implemented by staff who are in daily contact with hospital residents, and provides objective criteria defining specific elements of a comprehensive mental handicap service. Seven appendices are included detailing the Wessex Case Register Form; characteristics of hospital residents; examples of training activities; specifications for designing accommodation for physically handicapped people; residents' benefits and allowances; statistical information; and the members of the National Development Group. A bibliography (pp. 134-136) is also included.

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